DOCUMENT RESUME

ED 274 990 CS 210 102

AUTHOR Tibbetts, Charlene; And Others
TITLE The Composition Skills: Reality vs. Perception. Development Report Number 14.
INSTITUTION Illinois Univ., Urbana. Curriculum Lab.
PUB DATE Sep 86
NOTE 324p.
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC13 Plus Postage.
DESCRIPTORS Curriculum Development; *Curriculum Evaluation; Curriculum Research; Instructional Effectiveness; School Role; Secondary Education; Self Concept; Self Evaluation (Individuals); *Student Attitudes; Student Reaction; Student Role; Teacher Role; Teacher Student Relationship; Writing Evaluation; *Writing Improvement; Writing Instruction; *Writing Research; *Writing Skills

ABSTRACT

Evaluating the longitudinal effects of a 5-year secondary school composition curriculum, a study investigated students' perceptions of their ability to use essay-level and syntax-level skills. Student questionnaires provided perception, definition, and usefulness data about the curriculum. Results showed that 3 years elapsed before students became proficient in writing essays using the "illustration" mode. Findings also showed that the students overestimated their ability to use the essay-level skills, but underestimated their syntax-level skills. They defined the essay terms better than the syntax terms and demonstrated that they considered the former more useful. The analytic essay scores correlated positively with student perception and ability to define. Although they used fewer final free modifiers, students' sentence and T-Unit length compared favorably with results in similar studies. The results suggest that developing competent writers requires (1) an articulated curriculum; (2) an English Department sensitive to the time and effort required by the task; (3) student, teacher, parent, and administration participation; (4) continually high standards and constructive feedback; and (5) teacher understanding that not all students progress at the same rate and that none will write well all the time. (Tables of data are appended, and exhibits such as writing samples, proposed writing topics, and a student questionnaire from the study are included.) (JD)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED274990

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☒ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

THE CURRICULUM LABORATORY
COLLEGE OF EDUCATION
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

Development Report Number 14

THE COMPOSITION SKILLS: REALITY VS. PERCEPTION

CHARLENE TIBBETTS

with

Maureen Baker, Hyeong-Wan Noh, and Young Mok Park

Secondary Education
College of Education
1310 South Sixth Street
Champaign, IL 61820

September 1986

CS 210102

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Charlene Tibbetts

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

THE COMPOSITION SKILLS: REALITY VS. PERCEPTION

By Charlene Tibbetts

Associate Professor of Secondary Education
University of Illinois at Urbana-Champaign

with
Maureen Baker (Researcher)
Executive Teacher, University High School
University of Illinois at Urbana-Champaign

Myeong-Wan Noh (Statistician)
Chief, National Language Education and Moral Education
Korean Educational Development Institute
Seoul, Korea

Young Mok Park (Statistician)
(On leave) Educational Researcher, Ministry of Education
Seoul, Korea

CURRICULUM LABORATORY RESEARCH REPORT #14

ABSTRACT

This study evaluated the longitudinal effect of a five-year (grades 8 - 12) secondary-school composition curriculum. The study also investigated student perception of ability to use the essay-level and syntax-level skills taught in the curriculum. In addition, students defined the thirteen skill terms used in the curriculum and evaluated their usefulness. The definitions tested perception against knowledge.

The data came from four impromptu essays, written fall and spring each of two years. The essays were coded for structure, evidence, thesis, introduction, and conclusion. The syntax was analyzed for number and length of sentences, T-Units, free modifiers, and sentence bases. Student questionnaires provided the data for the perception, definition, and usefulness data.

Results show that it takes three years (grades 8 - 10) of an articulated curriculum for the students in this sample to become proficient in writing an essay using the illustration mode. The study also shows that these students overestimate their ability to use the essay-level skills, but underestimate their syntax-level skills. They define the syntax terms less well than the essay terms, and believe that the essay skills are the most useful. The analytic scores of the essays correlate positively with student perception and ability to define.

The students' sentence and T-Unit length compare favorably with studies of other high school students. The number of free

modifiers in opening and medial positions is comparable to those used by other students, particularly college freshmen. But the students in this sample use fewer final free modifiers.

TABLE OF CONTENTS

ABSTRACT.. i

PREFACE.. 1

PART I -- INTRODUCTION.. 4

CHAPTER 1 - Research on a Shoe String.. 4

THE SUBJECTS.. 5

THE RESEARCH QUESTIONS.. 7

LONGITUDINAL STUDY.. 8

Key Skills.. 9

The Essay Topic.. 9

The Evaluation Forms.. 10

DISCUSSION.. 11

WORKS CITED.. 16

CHAPTER 2 - University High School English Curriculum.. 17

SPIRAL CURRICULUM.. 18

CHALLENGING CURRICULUM.. 19

INDUCTIVE METHOD (DISCOVERY).. 19

WHAT WE TEACH.. 20

HOW WE TEACH.. 25

Composition Steps.. 26

Models.. 30

Repetition and Integration.. 32

Monitoring.. 33

Evaluation.. 33

Rewrites and Revisions.. 34

DISCUSSION.................................... 35

END NOTES..................................... 38

WORKS CITED................................... 39

PART II -- STUDENT PERCEPTION................................ 41

CHAPTER 3 - Essay-Level Skills (Student Perception)... 41

FIRST YEAR RESULTS............................ 41

ESSAY SKILLS SHOWING THE MOST GROWTH............. 45

Developing A Thesis........................... 45

Using Evidence................................ 46

ESSAY SKILLS SHOWING A MODEST GROWTH............. 47

Logical Organization.......................... 47

Topic Sentence................................ 49

ESSAY SKILLS SHOWING LEAST GROWTH................ 50

Developing Paragraphs and Writing Conclusions........................ 50

SECOND YEAR RESULTS........................... 52

Self Evaluation............................... 52

Student Perception and Student Knowledge........................... 53

Definitions................................... 60

Summary of Improvement Items Essay-Level Definition Test................ 60

Usefulness.................................... 61

DISCUSSION: DEFINITIONS........................ 62

Student Perception and the Curriculum............................ 66

Student Perception and Teacher Expectations....................... 68

END NOTES..................................... 73

CHAPTER 4 - Syntax-Level Skills -- Student Perception. 74

SYNTAX-LEVEL SKILLS SHOWING MOST GROWTH (STUDENT PERCEPTION)........................ 76

Free Units.. 76

SYNTAX-LEVEL SKILLS SHOWING A MODERATE GROWTH (STUDENT PERCEPTION)........................ 78

Sentence Variety.. 78

SYNTAX-LEVEL SKILLS SHOWING LOW OR NO GROWTH (STUDENT PERCEPTION)........................ 79

Parallelism.. 79

Signals.. 80

STUDENT PERCEPTION AND STUDENT KNOWLEDGE.......... 81

Free Units.. 82

Sentence Variety.. 84

Parallelism and Signals........................ 87

THE EFFECT OF REALITY ON STUDENT PERCEPTION -- SYNTAX-LEVEL SKILLS........................ 88

STUDENT PERCEPTION AND THE CURRICULUM............ 89

SECOND YEAR RESULTS.. 96

Perception.. 96

Definition.. 98

DISCUSSION.. 100

SELF-EVALUATION.. 102

USEFULNESS.. 102

END NOTES.. 104

WORKS CITED.. 105

PART III -- STUDENT PERFORMANCE PERCEPTION VS. REALITY... 106

CHAPTER 5 - Essay-Level Skills: The Product.......... 106

BACKGROUND AND THE QUESTION........................ 106

COLLECTING THE DATA.................................. 108

EVALUATING THE DATA.................................. 110

- Structure.................................. 111
- Thesis.................................. 112
- Evidence.................................. 114
- Introduction and Conclusion.................. 115
- Strategies.................................. 117

RATE OF GROWTH USING ROUTINE PROCEUDRE: ILLUSTRATION MODE.................................. 118

- Structure.................................. 120
- Thesis.................................. 124
- Evidence.................................. 129
- Introduction.................................. 134
- Conclusion.................................. 137

SECOND YEAR RESULTS.................................. 141

- Analytic Scoring of Essay.................. 141

DISCUSSION.................................. 149

- Reliability of the Topic.................. 149
- Reliability of the Evaluation Form............ 149
- Instruction Makes the Difference............. 150

IMPLICATION FOR A COMPOSITION CURRICULUM IN THE MIDDLE SCHOOL/JUNIOR HIGH.................. 150

END NOTES.................................. 153

WORKS CITED.................................. 154

CHAPTER 6 - Syntax-Level Skills: The Product.......... 155

THE SENTENCE SKELETON.................................. 155

- Questions.................................. 156
- Method.................................. 157

Results.................................... 158

Comparisons With Other Studies.............. 165

SENTENCE BASE GRAMMAR........................ 171

Bases and Free Units........................ 172

Punctuation................................. 172

Terminology................................. 173

Subordination............................... 173

Parallelism................................. 174

QUESTIONS.................................... 175

METHOD....................................... 175

Bases and Free Units........................ 176

T-Units and Parallelism..................... 177

Run-On Sentences............................ 178

Faulty Parallelism.......................... 178

Comma Splice................................ 178

Weak Signal................................. 179

RESULTS...................................... 179

DISCUSSION................................... 187

END NOTES.................................... 188

WORKS CITED.................................. 190

PART IV - CONCLUSION............................ 192

CHAPTER 7 - Correlations -- Both Years.............. 192

SELF EVALUATION (SEVAL) -- FALL TO SPRING........ 192

DEFINITIONS OF TERMS (DT) -- FALL TO SPRING...... 193

ANALYTIC SCORE (ANA) -- FALL TO SPRING........... 194

CORRELATIONS BETWEEN SELF EVALUATION (SEVAL)
AND DEFINITIONS OF TERMS (DT).................... 194

SEVAL Fall to DT Fall........................ 194

SEVAL Spring to DT Fall........................ 195

SEVAL Spring to DT Spring.................... 195

SEVAL Fall to DT Spring........................ 195

DISCUSSION.. 196

CORRELATIONS BETWEEN ANALYTIC SCORE (ANA) AND SELF EVALUATION (SEVAL)............................ 196

SEVAL Fall to ANA Fall........................ 197

SEVAL Fall to ANA Spring...................... 197

SEVAL Spring to ANA Spring.................. 197

SEVA; S[romg amd ANA Fall.................... 198

DISCUSSION.. 198

CORRELATIONS BETWEEN ANALYTIC SCORE (ANA) AND DEFINITION TEST (DT)............................ 198

ANA Fall to DT Fall........................... 198

ANA Fall to DT Spring......................... 199

ANA Spring to DT Spring...................... 199

ANA Spring to DT Fall......................... 199

DISCUSSION.. 200

END NOTES.. 201

WORKS CITED...................................... 202

CHAPTER 8 - What We Have Learned.................. 203

APPENDICES

APPENDIX I - LONGITUDINAL STUDY.................... 208

APPENDIX II - SIGNIFICANCE TEST PROCEDURE............ 233

APPENDIX III - SUPPORTING TABLES FOR CHAPTERS 3 THROUGH 6.................................... 240

EXHIBITS

EXHIBIT 1

SAMPLE PAPER.................................... 301

EXHIBIT 2

PAPER TOPIC, FALL, 1982.......................... 303

EXHIBIT 3

PAPER TOPIC, SPRING 1983......................... 304

EXHIBIT 4

PROPOSED TOPIC FOR FALL, 1983.................... 305

EXHIBIT 5

PAPER TOPIC, SPRING, 1984........................ 306

EXHIBIT 6

STUDENT QUESTIONNAIRE............................ 307

EXHIBIT 7

DEFINITION OF TERMS.............................. 308

EXHIBIT 8

STUDENT QUESTIONNAIRE............................ 309

EXHIBIT 9

DIRECTIONS TO CODER.............................. 310

EXHIBIT 10

WRITING APPREHENSION INSTRUMENT.................. 311

PREFACE

This report was written for middle- and secondary-school teachers of composition. For that reason, we purposefully chose not to follow the research-report format found in the journals or in the unpublished papers coming out of universities. We chose a different format because we wanted to speak directly to the teachers in the public schools who are trying to teach composition under less than ideal conditions. If this report has any impact on the teaching of composition, it will be primarily through the efforts of classroom teachers (or school administrators) who may be wondering how they can evaluate or improve a composition curriculum. They may also wish to conduct some research of their own.

Research on the teaching of composition has not influenced the day-by-day activities in schools the way that we had hoped. However, we are under no illusion that this report will have any greater impact than others have had. But we believe that an extensive description of our curriculum and its effect (or lack of effect) on student writing, might mean more to practicing teachers of composition than a report written in the customary format. We have also kept the research and statistical jargon to a minimum. This explains why the addendum carries much of the statistical analysis.

Except for the statisticians and one quarter-time research assistant, all the people involved in this research were classroom teachers. Most were graduate students, working on advanced degrees. Most had had experience teaching English in a public school. In addition to taking graduate work, they taught at least two classes of English at University High School in the time that this project took place. They were all actively involved in this research. Some were more experienced teachers than others, but all of them regarded the research as a challenge, providing an opportunity to see how effective their teaching had been.

We couldn't have done the research without these teachers. Their contributions to the research and to the success of the University High School composition program has been considerable. Therefore, to Adele Suslick, Sally French, Barbara Gutowsky, Bernadette Feeney, and Audrey Wells go our gratitude and respect. Amy Baker, who joined the University High School staff after the project was finished, gave a new perspective at the report-writing stage and was invaluable as a proofreader. Thanks to Chantanee Indrasuta who designed and executed the many graphs in the report, and Beulah Brown. Sauli Takala, on leave from the University of Jyvaskyla, Jyvaskyla, Finland who gave good advice. Leigh Little, the Curriculum Laboratory's secretary, was vigilant in demonstrating ways to make the computer work for us in development of the publication. She was not only a superb typesetter, but a copy-editor and formatter. To A.M. Tibbetts, who designed the University High School sentence-structure curriculum, and who managed to keep his good humor in spite of his skepticism about quanititative research in composition, we owe our personal and professional thanks.

Finally, our debt to Alan Purves, Director of the Curriculum Laboratory at the University of Illinois, is considerable. For some of us he is a graduate studies advisor; for all of us he is a colleague and friend. Without his support -- financial and psychological -- the project would never have gotten off the ground.

PART I -- INTRODUCTION

CHAPTER 1

Research on a Shoe String (A True Story)

In the spring of 1981, the College of Education decided to phase out its experimental laboratory school -- University High School. The reasons were based on economics and research needs. First, the College claimed that the high school was expensive, draining the College of funds that were more important to its mission -- undergraduate and graduate education. Second, the population of the student body (the academically gifted) did not fit the research interests of the College faculty.

The news to close the school came as a bitter blow to the faculty of the school, most of whom did not have tenure in the University. Those of us in the English Department had additional reasons to be disappointed. Even though we had done research and curriculum development in composition, our composition program had never been evaluated in any significant way. We had no quantitative proof that what we had been doing over the years was effective.

Some of us who had been teaching in the school for a long time knew that the composition program had become more effective during the years as a result of the application of research in pedagogy. We believed that we were consistently doing a better job teaching students to write. But we had no data to prove our effectiveness except by word-of-mouth testimony from our graduates, professors at the University (who reported that our graduates wrote well), and parents. The one thing we needed -- quantitative proof -- was lacking.

As a result of the news of University High School's closing we determined to collect that data in the fall of 1982.

THE SUBJECTS

Two-hundred-four to two-hundred-nine students participated in the 1982-83 study. Two-hundred-twenty-five to two-hundred-twenty-eight participated in the 1983-84 study.

University High School is a selected-admission school with a fairly homogeneous population of academically gifted students, ranging in ages from eleven to seventeen. Students must apply for admission to the school and successfully complete the Secondary Schools Admission Test. A selection committee reviews the pool of applicants and bases its selection on the test score and other material submitted to support the student's academic excellence: evidence of previous excellence in academic performance; letters of recommendation, and a student-written essay. The selection process is often a difficult task because many students score above the ninetieth percentile on the Admissions Test.

Most of the students enter the school at the eighth grade, skipping the seventh grade. We allow a few students to enter at grades nine and ten if the total student population drops below a certain number. We rarely admit new students at the eleventh or twelfth grades because curriculum development has been one of the major research missions of the school. As a result of this strict admissions policy, we do not have the constantly changing student population that some schools face. Consequently, it is an excellent population to test the success of a composition program.

About nineteen-percent of the students are from minority groups. More than fifty-percent come from University families -- one or both parents working at the University of Illinois. The students are generally from middle- and high-income families and most go on to college.

The research was done on a shoe string. The Curriculum Laboratory, the administrative unit of the College governing the school, had a modest research budget. The Director, Alan Purves, was as generous as his funds permitted. He provided one half-time Research Assistant (for coding and analysis) and one quarter-time statistician to compute the results. Consequently, we had to depend upon the teachers to administer the essays and the questionnaires. They also had to do some of the coding and analysis.

In the summer of 1982, the Vice-Chancellor of Academic Affairs saved the high school -- after a bitter and acrimonious battle waged by parents of University High School students. The school was given to the Graduate College and the Vice-Chancellor for Academic Affairs to administer.

The State of Illinois had passed an amendment to the school code, permitting laboratory schools, operated by public universities to receive money from the state common schools fund. After some wrangling about the, rules under which the section was to be administered, the University's use of the money to fund University High School was approved.

THE RESEARCH QUESTIONS

So, there we were, five English teachers, four of us teaching assistants (TA's) setting up a research project.

Our first two decisions were to make the study longitudinal and to use impromptu-written essays for most of the data. We identified our two primary questions:

1. How do students with the same general ability progress in using the routine procedures of pre-writing and writing in an impromptu personal essay, using the illustration mode?

2. Does the syntax used by students become more complex from grades 8 through 12? (For example, do the number of free units increase? Do the T-units become longer? Is there a corresponding increase or decrease in sentence bases?)

In addition to getting answers to the above two questions, we decided to collect all the additional data that we might need or want. Therefore, three secondary questions were added to the project:

3. How do students evaluate their ability to use the thirteen composing skills?

4. How do students rank the usefulness (or applicability) of the thirteen composing skills?

5. Based on a definition test, are student perceptions supported by their knowledge of the thirteen composing skills?

(Each of these and other questions will be dealt with more specifically and in greater detail in the statistical analysis that follows.)

LONGITUDINAL STUDY

Question one -- dealing with improvement in writing -- called for more than one year's data. Since we had no assurance that the school would be open more than two years, we chose to extrapolate from data collected during that time span.

We believed that we could make this extrapolation because the student body, curriculum, and staff had been fairly stable over the past six years -- the period which the graduating classes of 1982-83 and 1983-84 (our sample) had spent at Uni. Except for one grade-level -- the ninth grade -- most of the students had had the same teachers and the same curriculum for grades 8, 10, 11, and 12. The selection process for new students hadn't changed drastically, and those few students who had entered the school later than the 8th grade (without having the advantage of the full five-year curriculum) could be taken out of the sample. Therefore, with the same kind of student entering Uni, a stable curriculum and staff, we could say that Uni High students, grades 8 - 12, would have similar training.

Key Skills

We identified thirteen skills for the project, skills we use when we teach composition at Uni and therefore particularly important to both the students and the teachers. All of the evaluation instruments were designed around these thirteen skills.

1. Developing a thesis statement for a topic
2. Using a clear, logical organization in an essay
3. Writing a clear paragraph topic sentence
4. Developing a paragraph
5. Using relevant, detailed evidence to support the thesis
6. Writing introductions to essays
7. Writing conclusions to essays
8. Using openers in sentences
9. Using interrupters in sentences
10. Using closers in sentences
11. Using a variety of standard sentence types
12. Using appropriate signals
13. Using parallelism

The Essay Topic

We decided that most of the data had to come from a writing sample administered both fall and spring in the 1982-83 and 1983-84 school years. All of the students, grades 8 - 12, would be expected to write on the same topic each term: therefore, we needed four different topics that would appeal to a wide range of ages and experience. The 8th graders had to be able to write on the topics, but the seniors couldn't feel that the topics were too "babyish". The topics had to interest and motivate students from ages 11 to 17 who had a wide range of training and sophistication. In addition, the paper had to be impromptu or written without warning so that it would be an accurate representation of what each student could do without coaching.

We needed topics that would adapt themselves easily to the illustration mode because our curriculum emphasized the writing of that form in grades 8 - 10. The topics also had to be adaptable for other kinds of organizational strategies in case the older students wished to use their knowledge of comparison/contrast, process, classification, etc. Even though most of the writing assigned in grades 8 - 10 emphasized literary topics, we wanted to use personal topics. Therefore, our four topics relied on student experience for the evidence.

(The topics and instructions are included in the Addendix IV, Exhibits 2 - 5.)

The Evaluation Forms

The next step we faced was to develop our evaluation forms. Looking at other research, we didn't discover any forms that would fit our curriculum. But, more important, we needed the experience of developing our own. (One of the purposes of the Project was to make our teachers aware of various methods of evaluating compositions.)

The first seven of the thirteen key terms became the base for the analytic evaluation form, and the last six terms the base for the syntax grid.

We spent many hours pre-testing the two forms. The staff studied preliminary models, then used their teaching and grading experience to suggest revisions. Next, we pre-tested the models on student-written papers. After weeks of testing and revising, we came up with forms that we believed would give us a good data base -- data that would tell us how our students progress in the development of their writing skills from grades 8 - 10.

The key skills were especially important in collecting data for questions 3 and 4 -- students' perception of their writing ability and their knowledge about writing. Since the composition curriculum is organized around these skills, and since the teachers are expected to teach them, the students should be familiar with all of them. Therefore, the list of skills became a base for all of our student questionnaires.

DISCUSSION

It would be unrealistic to report that throughout this project everyone was happy. Even though the staff felt that they were learning a great deal, the activities connected with the project became burdensome. For this reason, we had to abandon one of the objectives of the study -- to determine if the time teachers spent on teaching particular skills at each grade level had any relationship to student improvement.

In order to get the answers to this question, we had asked teachers to keep a daily log, tallying the amount of time spent on the thirteen skills listed above, and the method used to teach the skill. This task, in addition to everything they were expected to do, nearly broke the camel's back. In a quiet way, the teachers refused to keep the log, so we abandoned that part of the project. However, it was no great loss because we learned that programming an accumulation of data such as this would have been costly and time-consuming.

The story is a happy one, so far. University High School didn't close, and we completed the research. What the future holds for the school is uncertain. Certainly changes in curriculum and staff will occur. The mission of the school may also change. Therefore, what we show about our curriculum from 1977-1984 may not be true by 1988. Nevertheless, this is the story of one English department's effort to prove that what it does in teaching composition seems to work, at least some of the time. It also shows where we need to improve.

Members of the staff had to do most of the work coding and tallying papers and questionnaires. This may have been a disadvantage because some bias may have crept into our evaluations, no matter how objective and consistent we tried to be. However, we think that there were advantages to our being directly involved in the project. For instance, we could see first-hand the continuity of our program, the building of composition skills from the eighth grade to the twelfth. We could also observe how the students responded to the sequence of the curriculum -- see their realizations that the building blocks of the curriculum were having a decided effect on their writing. We could see them become increasingly aware of the fact thay they had been taught to write under a definite plan, a curriculum that did not depend upon happenstance.

In this report, we have devoted most of the analysis to the first year's data, even though the second year's data is positive, supporting the first year's results in most ways. We originally set up the second year to provide a validity check and to provide information about the longitudinal effect of the composition curriculum. Therefore, we never intended to analyze the second year's results in the same way that we analyzed the first year. We knew that a certain amount of test-bias and teacher influence might occur. We also realized that the students would probably get bored with the exercise. The second-year results seem to bear out these influences, in some cases more than in others. For instance, the students learned the definitions, and they began to feel more confident in their writing skills. But some of the students -- the older ones in particular -- became bored with the impromptu-essay. Student boredom was a price we paid for conducting a longitudinal study in a small school where the student population was almost the same both years.

Test bias was nearly unavoidable since our teaching staff was involved in the evaluation. But if we hadn't done the work, there would have been no project. We are like most high schools -- we couldn't afford to bring in a crew of evaluators. If we wanted an evaluation, we had to do the bulk of it ourselves. With the schools increasingly under scrutiny for producing a product -- students who can read and write -- it behooves schools to evaluate their programs. But more than that, it should motivate English departments to create a composition program that can be evaluated. In addition, teachers must learn to measure what they do, not be held accountable on the basis of some kind of standardized test. The evaluation should measure what is being done in the classroom.

So here we were, just a bunch of high school teachers who set out to find out how well we were meeting our objectives. We didn't have any more expertise than many other high school composition teachers. But we believed that it was time to collect our evidence in order to defend our program. Blanket condemnations about writing programs are often made by composition experts outside the high schools. Some of these experts, for instance, are critical of teaching the five-paragraph theme, the outline, and the topic sentence. We hope that this project will reassure other high school composition teachers that if a particular method works for them, they can continue to teach the outline, the five-paragraph theme, the topic sentence or any other method, without apologies.

Bereiter believes that much of the data about writing development is "tentative" because the "data relate to what students do under typical composition-writing circumstances and not what they can do under maximally revealing circumstances" (90). We hope that other schools can also show that their programs are not "typical" and be proud when they get results.

WORKS CITED
CHAPTER 1

Bereiter, Carl, "Development in Writing", Cognitive Processes in Writing, Ed. Lew W. Gregg and Erwin R. Steinberg. Hillsdale, NJ: Erlbaum, 1980.

CHAPTER 2

University High School English Curriculum

For the past two decades, the Curriculum Laboratory of the University of Illinois (Urbana/Champaign campus) has been a center for curriculum development and research in all subject areas. In the early 1960's -- before the so-called "writing crisis" -- Professor James McCrimmon, with the assistance of a staff of trained, experienced secondary-school English teachers, developed a junior-high, senior-high comprehensive English program in language, rhetoric, logic and literature. The materials were tested at University High School -- the five-year high school administered by the Curriculum Laboratory (College of Education). Later the materials were field-tested in 50 demonstration centers in the state of Illinois and the composition strand was published by Holt, Rinehart and Winston (Levy/Tibbetts, 1972).

In the last decade, the composition segment of the program has constantly evolved, taking into account recent research on how students learn to write. Research conducted at the Curriculum Laboratory and elsewhere has provided lessons on list-making (Tibbetts, 1979; 1980); classification (Martin, 1978; Tibbetts, 1980); stance (Tibbetts/Tibbetts, 1983); an adaptation of the Christensen sentence base rhetoric (Tibbetts/Tibbetts 1978; 1983); and logic (Ennis, 1983). In addition, Alan Purves' research on "Difficult Learnings" (1978) provided important insights into the development of middle-school students.

The teaching materials for the curriculum in rhetoric, logic, and language come primarily from the Holt series Rhetoric in Thought and Writing; Strategies of Rhetoric; Strategies: A Rhetoric and Reader; and mimeographed unpublished materials.

In the 1960's -- as a result of Russia's success with putting Sputnik in space -- public and private agencies funded educational research in curriculum development and theory. As a result of that curriculum research (some of it influenced by Bruner, 1962; 1966), three premises emerge, premises that influenced the development of the University High School English Curriculum in literature, rhetoric, language, and logic. First, a curriculum should spiral so that students could build on previous training. Second, the curriculum should challenge students and push them beyond their present stage of development. Third, the teaching method should be mainly inductive.

SPIRAL CURRICULUM

The composition curriculum at University High School progresses from easy to difficult, with constant repetition of the prinicples taught in the early grades. For example, in the first year we introduce the students to tools of analysis -- list-making, classifying, abstracting, and generalizing. In the later lessons we extend the analysis to increasingly mature levels -- cause-effect, definition, and argument. Throughout the five grade levels, the material becomes increasingly more difficult and demanding, building on the skills and principles introduced earlier.

CHALLENGING CURRICULUM

We challenge students by requiring them to engage in sophisticated thinking skills, skills that some would believe young students are incapable of doing. Vygotsky calls this process going past the "zone of proximal development" (87). He believes that students need to be pushed because "the only good learning is that which is in advance of development" (89). Vygotsky also suggests that "what children can do with assistance of others might be in some sense even more indicative of their mental development than what they can do alone" (85). The composition curriculum and the teachers at University High School push students until they are ready to catch up to their developmental level because according to Bruner a child needs material that will "challenge him with a chance to exercise his full powers, so that he may discover the pleasure of full and effective functioning" (Process: 50).

INDUCTIVE METHOD (DISCOVERY)

The lessons in logic, rhetoric, and language are designed for the inductive or discovery method of teaching. Students are required to make inferences from given examples and then to generalize these inferences into a principle, thesis, or process. The teacher asks questions and guides the discussion toward a discovery of the principle that the lesson teaches. Bruner gives advice about the inductive method: It isn't necessary for children to "discover all generalizations for themselves", but a curriculum ought "to develop a decent competence at it [discovery] and a proper confidence in their ability to operate independently"

(Toward a Theory: 96). We often give students this training by designing group discussion activities that allow for discovery. For example, a typical inductive lesson might be on collecting evidence for comparison and contrast. By using the Odyssey, the students identify the qualities of the epic hero. In a comparison/contrast exercise, based on class responses, the students can list all the qualities of a good man (using modern standards) and the qualities of a hero, using Odysseus as a model. As students identify the qualities of the two, students will discover that they are involved in collecting evidence for a comparison and contrast between an epic hero and a good man.

WHAT WE TEACH

We divide the composition curriculum into three sets of skills:

Thinking and Processing Skills
Sentence, Language, and Punctuation Skills
Model-Imitation Skills

In the following outline, note that the 8th - 10th grade composition curriculum is listed separately from the 11th and 12th grade. We have done this for several reasons. In the early grades we emphasize one organizational mode -- illustration -- because students need practice in using examples and evidence to properly support a thesis. By the 11th grade, students have been introduced to all the basis skills taught in the first three levels; consequently, they are ready to use more sophisticated organizational patterns like analogy and definition. The 12th grade composition curriculum consists almost entirely of argument -- researching a proposition of fact, and culminating in a direct-clash debate.[1]

8th - 10th Grades

THINKING AND PROCESSING SKILLS

- Induction and Deduction
    - Finding the evidence
        - Facts, opinions, assumptions, inferences, & hypotheses
        - List-making
        - Classifying/categorizing
        - Generalizing/abstracting -- finding a thesis
    - Outlini
    - Stance
    - Role, thesis, audience

SENTENCE, LANGUAGE AND PUNCTUATION SKILLS

- Sentence types
- Additive grammar (Sentence base) punctuatio
- Spelling/vocabulary
    - Denotation and connotation
    - Diction
- Usage

MODEL IMITATION

- Illustration (5-paragraph theme)
- Paragraph Structure
    - Inductive: Funnel model
    - Deductive: Inverted funnel model
    - Space, time, cause-effect, classification, comparison/contrast
    - Comparison/contrast essay

CONTENT

- Primarily literature-based[a]

11th Grade

THINKING AND PROCESSING SKILLS

- Induction and Deduction
    - Defining
    - Drawing analogies
    - Identifying cause-effect, correlation
    - Classifying, generalizing, and outlining

SENTENCE, LANGUAGE, AND PUNCTUATION SKILLS

- Peer editing
- Stance
- Spelling/vocabulary
- Usage

MODEL IMITATION

- Classification, process, definition, analogy and cause-effect
- Mixed modes

CONTENT

- Literature and non-fiction prose
- Personal experience

12th Grade

THINKING AND PROCESSING SKILLS

- Induction and Deduction
    - Deliberation
    - Propositions: fact and action
    - Refutation
    - Syllogistic reasoning

SENTENCE, LANGUAGE AND PUNCTUATION SKILLS

- Peer editing
- Ethical, emotional, and logical appeal
- Usage

MODEL IMITATION

- Analogy
- Definition: terms needed to establish proposition
- Debate: need, solution, and benefit
- Refutation

CONTENT

- Literature
- Research topics geared toward proving a debatable proposition

HOW WE TEACH

How we teach composition is more difficult to describe than what we teach because the process is complex. We find it difficult to identify what we do first, second, or third. We can't even say exactly where the steps of the process intertwine because so much depends upon the ability of the particular students we are teaching. Therefore, because this description of how we teach composition does not always take flexibility into account, it may appear that our methods are rigid and stratified. Consider our teaching of composition like dancing -- a great deal of moving back and forth, side-stepping, and circling occurs. If you read this description with a dancing metaphor in mind, you may get an accurate picture of how we teach compositon at University High School.

However, one objective we cling to tenaciously: students must demonstrate that they can write a unified essay proving a thesis before they graduate. (We discuss the sentence-structure curriculum at some depth in chapters 4 and 6. Nothing is new about this except that we start the process at the 8th grade rather than later in high school. In addition, we have a five-year articulated program in which the steps of the process are repeated, integrated, monitored, and evaluated.

Articulation

Except for a few teachers and researchers, the school has been staffed almost entirely with teaching assistants. This means that we have a high turnover, creating a need for a well-articulated, stable curriculum in composition. A teaching assistant is usually a half-time teacher, responsible for two sections of one grade level in English. Consequently he or she is responsible for all the English taught at that grade level.

When new teachers join the English department, they receive a complete curriculum, consisting of lesson plans, objectives, tests, suggested projects and activities. Since they are often inexperienced, they appreciate having a curriculum already prepared. They also receive a list of objectives and a description of the content for each of the other levels, so they know how their teaching materials coordinate with the other grades.

Composition Steps

From the protocol analyses of competent writers, we know that not all writers use stages or steps in the composing process (Flower and Hayes: 51). However, we are teaching routine procedures to inexperienced writers. By giving them routines to follow, we hope that they will later adapt their composing processes to fit their own needs. Therefore, we try to break up all composition assignments into steps, the number of steps depending upon the grade level. The younger students need more steps than the older ones.

A typical seven-step process for beginning writers:

1. Find the evidence that answers the question.
2. List the evidence.

3. Classify and categorize the evidence in its logical parts.
4. Generalize from the evidence with a statement that answers the question, and one that you can prove (THESIS).
5. Develop an outline.
6. Write a rough draft, revise.
7. Write a final draft.

Below is a detailed description of how this process may work in the classroom.

Composition Steps: A Working Model

After reading "You Can't Take It With You", 8th graders broke up in small groups to discuss the question:

Alice tells Tony that there is a certain nobility about her family. Discuss whether or not this is true.

In small group discussion, the students made the following list:

-- even though they aren't rich, they live life to the fullest

-- they're not stuck up

-- they're friendly, jolly

-- they mind their own business

-- they're not worried about what other people think

-- they're magnificent

-- calm, peaceful, serene

-- they do what they want to

-- they have this attractiveness about them

-- not stingy

-- they accept people for what they are

After developing this list, the members of the group classified the evidence and came up with the following generalization to use as a thesis: We agree that the Vanderhoff/Sycamore family is noble because they are friendly, they live life to its fullest without worrying about what others think, and they are calm and peaceful.

Next, the students were ready to translate their thesis and evidence into an outline. Here is the way main-level points develop:

I. The Vanderhoff family is friendly.

II. The Vanderhoff family lives ife to its fullest, without worrying about what others think.

III. The Vanderhoff family is calm and peaceful.

Since the students were previously taught list-making, classifying, and logical reasoning, they understood the outline as a form of deductive classification. However, before students wrote the rough draft, the thesis and outline were checked to see that they fit. The students were required to use complete sentences in the two first main levels of their outlines, so they had topic sentences for their paragraphs.

After the thesis was checked against the outline, students used specific examples that they had collected to support the generalizations. (Since the students had collected their evidence in small-group discussion they had identified page numbers where they could find examples to prove their thesis.)

If this play were taught to older students, the classroom discussion and assignments would be geared toward more sophisticated thinking skills such as comparison and contrast (ninth and tenth grades), definition and cause-effect (eleventh grade), and argument (twelfth grade). Combinations of these strategies (called *mixed*) could also be used. Even though the students gradually become more independent in their development of theses, the questions ask for a particular organizational strategy. The questions below show how the composition assignments for this play could progress in difficulty, depending upon the thinking and organizational skills that the students had studied.

1. In class discussion, we identified the qualities of a patriarchal family, We decided that both families in *You Can't Take It With You* fit our definition. Using that definition, compare and contrast the roles of Grandpa and Kirby in each family. (comparison and contrast)

2. What causes Tony Kirby to change his attitude about family unity and familial influence? (cause and effect)

3. Define *family*. Then, using the elements of your definition for the points of comparison, compare and contrast the Vanderhoffs and Kirbys. (mixed strategies)[3]

4. Both Mr. Kirby and Grandpa argue that their way of life is the better way to live. Take one of the following positions and write an argument. Don't forget to use your refutation skills.

   (a) Argue that Grandpa is correct, but Kirby is wrong in their prescriptions for the way to live.

   (b) Argue that Mr. Kirby is correct, but Grandpa is wrong.

   (c) Argue that neither Mr. Kirby nor Grandpa is correct. (If you take this position, you will need to offer an alternative.)

Models

We use models to teach organization and style. We use student-written models at all grade-levels; but in the upper grades, professionally-written models published in a rhetoric Reader are analyzed and discussed.

We use student-written models because it is important for beginning writers to have a realistic goal and to see writing that is within their ability to emulate. Since student-written models are seldom perfect, the younger students take comfort in seeing that they can write as well as the person who wrote the model. It is important, however, that the model be excellent in at least one way -- perhaps good proof for the thesis, lively examples, or good transitions.

After returning a set of compositions, the teacher chooses both good and bad student-written models to teach organization and editing. Teachers are discreet in using these models -- we explain the objectives of the lesson, keep the discussion low-key and fair, and never identify the writer. When students are trained to look at each other's writing, and when they find that the process improves their own papers, they view it as a positive experience.

Student-written papers are also a gold mine of examples for teaching usage, mechanics, sentence structure, and diction. We cull typical errors from a class set of compositions and use them for class discussion. Studying errors in a handbook is not nearly as useful as studying real-life errors that come out of a set of compositions.

Teachers usually introduce the organizational strategy or mode before assigning an essay. For instance, we don't assign formal argument until the 12th grade, and then only after teaching argumentative propositions (fact and action), logical appeal, inductive and deductive logic, and the common fallacies. We don't assign comparison and contrast papers until students have learned to classify and have studied the various ways writers organize comparison and contrast.

The description of assignments and objectives are as clear as we can make them. For each composition assignment, the student receives a description of the question and an outline of the objectives. The assignment nearly always reflects the kind of organization required:

> What caused Carol (in Lewis' Main Street) to act as she did? (asks the student to use cause-effect)
>
> Compare and contrast Hap and Biff's reactions to Willie (Miller's Death of a Salesman). (asks for comparison and contrast)
>
> What kind of a hero is Henry Fleming (Crane's The Red Badge of Courage)? (asks for definition)

Repetition and Integration

Once a teacher introduces a composition skills other teachers repeat it in some form in the subsequent years. In particular, 8th graders learn to list, classify, and categorize. These classification skills lead to writing classification paragraphs in the 9th grade. In the 10th grade students use their classification skills to develop comparison and contrast papers and to think inductively and deductively. In the 11th grade, defining by classification builds on previous knowledge. And, finally, the categorical syllogism and other inductive and deductive reasoning patterns build upon earlier instruction in classifying. The debate brief is the crowning glory of the deductive classification schemata.

Monitoring

During the process of finding evidence, developing a thesis, organizing and writing, the teacher monitors each step. Monitoring may take place in individual conference or in large or small groups. At each step of the process, teachers monitor the progress of the students. Sometimes a student needs to refine a thesis. Sometimes an outline's logic needs revising. Concerns about changing the ordering of evidence needs discussion. At each stage of preparing a paper, the teacher advises, criticizes, and evaluates. Class days are set aside to check theses and outlines. At least one day is devoted to working on organization so that students can discuss problems with the teacher and other students.

Because we use literature as the content for most of the composition assignments in the first three years, students and teacher share the same information. We have found that when everyone shares the same facts, brain storming on how to manage a composition is usually productive. But more important, students and teacher monitor each other for accurate representation of the evidence.

Evaluation

Every essay gets a single grade, with positive and negative comments written in the margins. We seldom waffle with a double grade -- one for content and one for form. The student is expected to perform well on the final draft of the composition, particularly after being monitored along the way.

As teachers monitor the steps in the pre-writing process, they may choose to give a grade for each step -- on the outline or on the rough draft. Consequently, the student may earn more than one grade in the process of writing a single composition. This policy of giving multiple grades is particularly true for long research projects when students get a separate grade for the notes, outline, footnotes, bibliography, and the final product.

Teachers grade on improvement. They try to keep notes on each student's strengths and weaknesses. If a student is weak in certain skills but consistently improves during the school year, the teacher rewards that student. On the other hand, the staff will fail papers that don't meet the objectives of the assignment. We are not afraid to fail students who do slap-dash work, particularly when we know that they are capable of doing better.

Since teachers oversee and monitor the steps of the planning process -- checking evidence, outline, and sometimes the rough draft -- it is easy to spot papers that do not come up to expectations. When a step-by-step procedure is followed, and the teacher monitors the process, the success rate in composition is very high. It is not unusual for teachers to give 3/4 of a class A's and B's on a final draft.

Rewrites and Revisions

We encourage students to revise at every step: to change categories, throw out old evidence, find new facts, tighten up the thesis. Revising at the rough-draft stage is usually done through peer evaluation in small-group discussion. Since all the students in the class share the same information, and since they have all read the work, they can make cogent recommendations about the evidence and content. However, we usually do not recommend rewrites after the final draft stage or after the paper has been evaluated.

Allowing rewrites sometimes rewards students who, for one reason or another, choose to do careless work on the final draft. We have discovered that some students will do careless work, receive a poor grade, and then assume that they can rewrite for a better grade. Meanwhile they have learned from their classmates' mistakes by taking advantage of class discussion after the papers have been returned. Allowing rewrites when the original work is shabby sometimes penalizes students who have diligently prepared and who have taken the assignment seriously the first time. Therefore, we encourage students to learn from the experience and to do a better job on the next paper. And they nearly always do. There's nothing like a bad grade to encourage an academically-gifted student to work better.

DISCUSSION

We have developed these methods of teaching composition after years of experimentation, observation, and trial and error. By listening to our students and studying the research, we hope to continue to improve our program. Bereiter and Scardamalia in their research with children have listed seven procedures that teachers can use to help boys and girls learn to write. These procedures fit the University High School composition program.

A teacher of composition should:

1. Give students simplified tasks that mimic what experienced writers do, such as making lists.
2. Provide activities that skip some of the sophisticated preparation in composing, for instance, by helping students to find and classify evidence.
3. Limit the choices students have, perhaps in specifying the rhetorical mode.
4. Develop procedures that by-pass immature tendencies, such as providing a thesis to avoid rambling compositions.
5. Make students aware of the process by putting the process on the conscious level.
6. Use and define terms that denote the process such as developing a thesis, generalizing from the evidence, and classifying.
7. Use procedures that can be simplified or made more complex, such as, sentence skeletons become sentence bases with free units: openers, interrupters, and closers added (54-58).

Bereiter and Scardamalia describe their success in using these procedures: "Considering the low value placed on composition skills in our society, considering the frequently negative attitudes of children toward writing, we have been continually astonished at the great urge toward mastery that children exhibit as soon as they come into contact with a procedure that promises to give them a foothold in the arduous ascent [of learning to write]" (58).

The results of our research will show that students at University High School also have a "foothold in the arduous ascent" of becoming competent writers.

END NOTES
Chapter 2

1. Even though the final product of the debate unit is a speech, we consider it part of our composition sequence because the research and organization skills are so important in argumentation. In addition, seniors write many arguments (including refutations), based on their research.

2. The study of literature takes at least half of each year's program, grades 8 - 12.

3. Note that assignment number three is more sophisticated than assignment number one. In assignment number three, we ask students to develop their own definition of family, after a long unit on methods for defining. In assignment number one, we refer to a classroom discussion in which students participated in developing the definition; consequently, they have a ready-made list of topics to use in their comparison-contrast.

WORKS CITED
CHAPTER 2

Bereiter, Carl and Marlene Scardamalia. "From Conversation to Composition: The Role of Instruction in a Developmental Process", Vol. 2 of Advances in Instructional Psychology. Ed. R. Glaser. Hillsdale, NJ: Erlbaum, 1982.

Bruner, Jerome S. The Process of Education. Cambridge, MS: Harvard UP, 1962.

---. Toward a Theory of Instruction. Cambridge, MS: Harvard UP, 1966.

Ennis, Robert H. Critical Thinking/Critical Reasoning. Illinois Thinking Project, Bureau of Educational Research, Urbana, IL: U Illinois, 1983.

Flowers, Linda S. and John R. Hayes. A Process Model of Composition. Technical Report #1, Document Design Project. Pittsburgh, PA: Carnegie, 1979.

Levy, Edward R. and Charlene Tibbetts. Rhetoric in Thought and Writing. 4 Vols. New York, NY: Holt, 1972.

Martin, Mary Ellen. Describing Classification Skills of Sixth Seventh, and Eighth Graders. Diss. U of Illinois, 1978.

Purves, Alan C. Learning and Teaching in English. Curriculum Laboratory Development Report Number 1. Urbana, IL: U of Illinois, 1978.

---. and Mary Martin, Barbara Bauer and Richard Schreck. Difficult Learnings in English. Carnegie Corporation Report, December, 1978.

Tibbetts, A.M. and Charlene Tibbetts. Strategies of Rhetoric. 5th Edition. Glenview, IL: Scott, 1987.

---. Strategies: A Rhetoric and Reader, 2nd Edition. Glenview, IL: Scott, 1984.

---. What's Happening to American English? New York, NY: Scribner's, 1978.

Tibbetts, Charlene. Developing an Inductive Lesson Plan for Literature. Springfield, IL: Illinois Office of Education, 1979.

---. "Classification: The Most Important Step in Pre-Writing". Kansas English 65 (1980) 11-14.

---. "List-Making and Categorizing: The Neglected Step in Classification", ERIC, November 5, 1979.

Vygotsy, L.S. Mind in Society: The Development of Higher Psychological Processes. Ed. Michael Cole, et al. Cambridge, MS: Harvard UP, 1978.

PART II -- STUDENT PERCEPTION

CHAPTER 3

Essay-Level Skills -- Student Perception

A few of our graduating seniors come back to visit us each year. They are always quite complimentary about the compostion instruction they received. They often claim that they are able to write well, and that they are successful in their college classes. (Teachers in other high schools have reported similar experiences, so we are not unique in this respect.) The students who come back to see us are usually the more competent, successful students, so we are not surprised at their confessions.

But what about the others? What about the students who struggled, but became only marginally competent writers? Did they find that the composition curriculum prepared them for writing tasks? So we asked ourselves: "How do our present students perceive their ability to compose essays and write sentences? How do they perceive their ability at each of the five grade levels?

Secondary questions regarding student perception dealt with usefulness. Which of the essay and sentence structure skills did they find most useful? Were particular skills more useful at some grades than others? We also wondered if student' perception of their ability had any relationship to the usefulness of each skill.

In studying our curriculum, we identified thirteen composing skills -- seven essay skills and six syntax skills (see pp. 9).

Therefore, we developed our three questions about student perception around those thirteen skills.

(Tables for this chapter are in Appendix III, Tables 1-6.)

1. How do students evaluate their ability to use the thirteen composing skills?
2. How do students rank the usefulness (or applicability) of the thirteen composing skills?
3. Based on a definition test, are student perceptions supported by their knowledge of the thirteen composing skills?

The answer to these questions came from two student questionnaires and one definition test. (The statistical method used for this part of the study is discussed in Appendix II.)

To answer Question #1: How do students evaluate their ability to use the thirteen composing skills? we administered questionaires (see Exhibit 6, Appendix IV) each of the four semesters. Students were asked to evaluate (on a four-point scale) their ability to use the thirteen skills:

4 -- I can do the skill well.

3 -- I need lots of help or practice.

2 -- I don't know whether or not I can do the skill.

1 -- I don't know what the term (name of skill) means.

(The last item of the scale was necessary because we use terms in the sentence-structure, additive-grammar program that students, coming into the program, would not know.)

To answer Question #2: How do students rank the usefulness (or applicability) of the thirteen composing skills)? we asked students in three samples (1982-84) to circle the five skills (of the 13) that they found most useful when writing an essay (see Exhibit 8, Appendix IV).

To answer Question #3: Based on a definition test, are student perceptions supported by their knowledge of the thirteen composition skills? we asked students to define each of the thirteen skills and list the five sentence types. Coded on a five-point scale, ranging from no answer to satisfactory definition, we set requirements for satisfactory definitions.[4]

> Thesis: A single sentence that states the main idea (or point) that the writer plans to prove. (We rated a definition incomplete if the word prove, support, or substantiate was not evident in the definition.)
>
> Logical Organization: A pattern or sequence of ideas that helps the reader follow the organization of the paper. (Circular definitions such as "an organization that follows a logical pattern" were coded incomplete.)
>
> Paragraph topic sentence: A statement that introduces the main idea in the paragraph. (An incomplete definition: The first sentence in the paragraph.)
>
> Paragraph: A collection of unified sentences that lends support to the thesis. (Or, a group of sentences related to one topic.)

Evidence: The facts used to support the thesis (or topic sentence.)

Introduction: The first paragraph or two when the writer gives background information, introduces the topic, and states the thesis.

Conclusion: A paragraph that sums up the evidence used to prove the thesis.

In examining the data from the entire student body on how well they perceive their abilities in essay skills, we see an upward, steady growth. Their self-evaluations show three classes of ability: (1) essay skills showing the most growth over the one-year period; (2) essay skills showing a moderate growth; and (3) essay skills showing the least growth.[1] (Even though we have classified our results in this way so that we could handle our material expeditiously, the students rank their abilities in essay-level skills very high. They are quite confident in all of these skills.)

In addition to describing the students' perception, in this chapter we will also report how students perceive the usefulness of the three classes of essay-level skills. Later we will suggest some possible causes for fluctuation in student perception, not only from fall to spring but also from one grade level to the next.

FIRST YEAR RESULTS
ESSAY SKILLS SHOWING THE MOST GROWTH (STUDENTS' PERCEPTION)

The statistical analysis shows a significant growth in students' perceived ability to use two skills -- developing a thesis from a topic and using relevant, detailed evidence to support a thesis. Growth in thesis is almost twice the growth in using evidence.

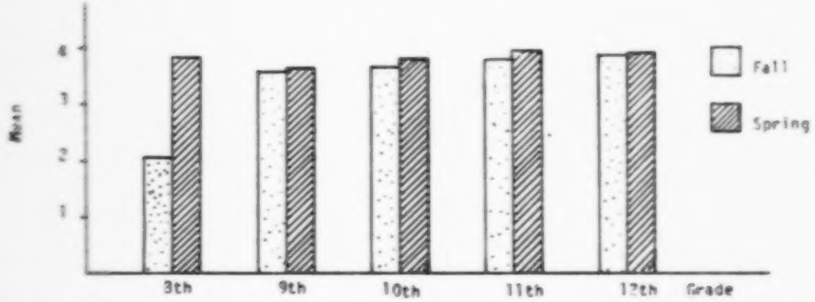
Developing A Thesis

The questionnaire was rather precise in asking for information about the thesis. We asked students to evaluate how well they could develop a thesis statement for a topic, not how well they could write from a thesis. Eighth graders, who had only recently been introduced to the process, perceived the most growth in ability to do the skill well. No other grade level reported as much growth. The ninth graders' perceived ability stayed steady, but below that of eighth graders. We see a steady upward trend in the upper grades, with confidence stabilizing at the end of the twelfth grade.

Except for the 11th grade, where thesis tied with organization and evidence at second place, the students ranked developing a thesis the most useful skill in composition.

MEANS OF STUDENT'S SELF-EVALUATION ON WRITING SKILLS: DEVELOPING A THESIS

GRAPH 1

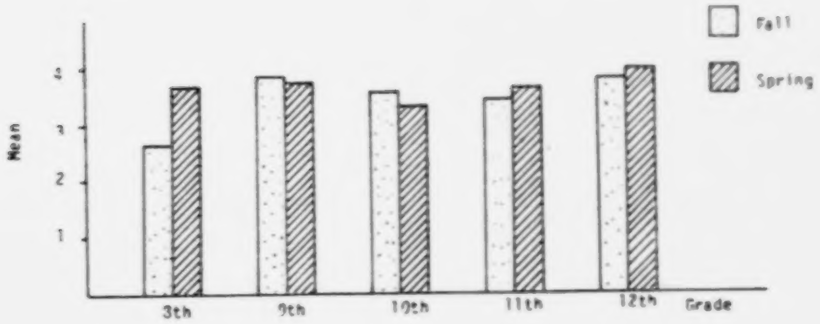


Using Evidence

The skill showing the second most growth was in using relevant detailed evidence to support a thesis. The statistical analysis shows the entire student body having a mean of 3.56 in the spring, growing from 3.44 in the fall. Again, a significant growth is perceived at the eighth grade level. Ninth graders report a high degree of confidence in their ability to perform this skill in the fall, but they perceive their skills staying nearly the same in the spring. Tenth and eleventh graders express less confidence in their ability, but the seniors show an increase in the spring, after the debate unit.

Eighth graders and ninth graders ranked using evidence as the third most-useful skill; the ninth, eleventh and twelfth graders ranked it second in usefulness. The tenth graders ranked using evidence 4.5 in usefulness.

MEANS OF STUDENT'S SELF-EVALUATION OF WRITING SKILLS:
USING EVIDENCE
GRAPH 2



ESSAY SKILLS SHOWING MODEST GROWTH

Based on statistical evidence, the group of skills showing only a modest improvement in perceived ability are using a clear, logical organization, writing a clear paragraph topic sentence, and writing introductions.

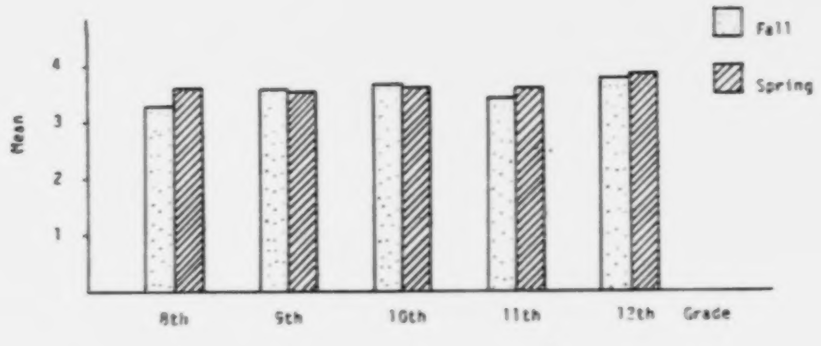
Logical Organization

As usual, eighth graders perceive their ability to use clear, logical organization more highly than their skills may warrant.

Ninth graders start the fall term feeling somewhat more confident than eighth graders, but perception of their ability doesn't improve in the spring. We see a similar pattern in the tenth grade -- confidence starts high in the fall, but it drops in the spring. Eleventh graders are even less confident than tenth graders in the fall, but they perceive their skill at organization improving somewhat by spring. We see confidence improving at the senior level.

Even though most of the students fluctuate in perceived ability to use a clear, logical organization, they rank its usefulness second.

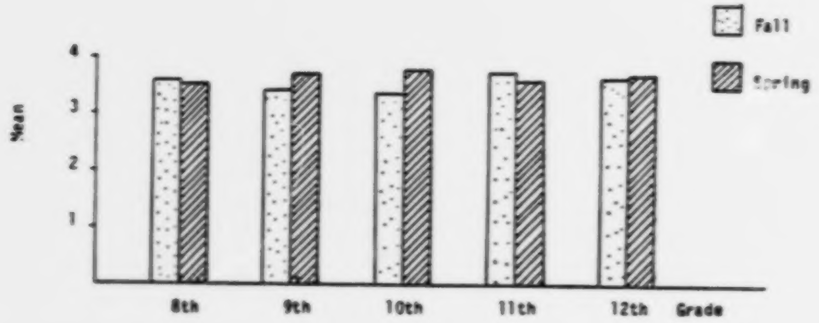
MEANS OF STUDENTS' SELF-EVALUATION OF WRITING SKILLS:
LOGICAL ORGANIZATION
GRAPH 3



Topic Sentence

Eighth graders come from grade schools with a high opinion of their ability to write topic sentences. Ninth and tenth graders indicate a significant growth in perceived ability during the school year, but eleventh and twelfth graders' perceived ability stays about the same. This may be reflected by the fact that students do not find writing topic sentences one of the top five most-useful skills, ranking it seventh (except for tenth graders who ranked it 4.5).

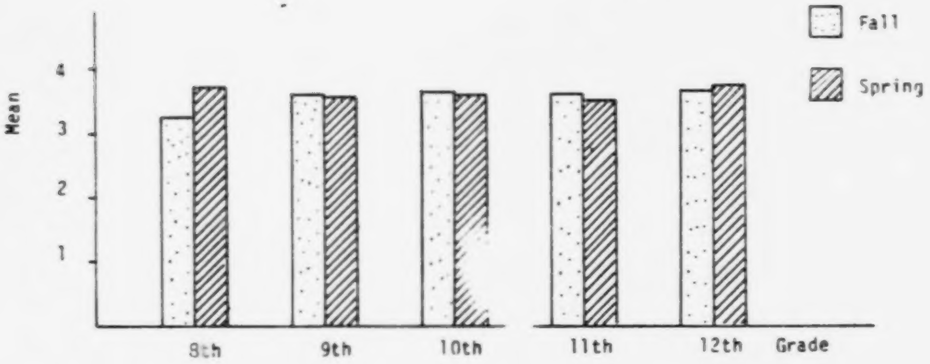
MEANS OF STUDENTS' SELF-EVALUATION OF WRITING SKILLS:
TOPIC SENTENCE
GRAPH 4



Introductions

Past the eighth grade, students, in general, do not perceive their ability to write introductions as improving, although they rank it in the top five in usefulness.

MEANS OF STUDENTS' SELF-EVALUATION OF WRITING SKILLS: WRITING INTRODUCTIONS
GRAPH 5



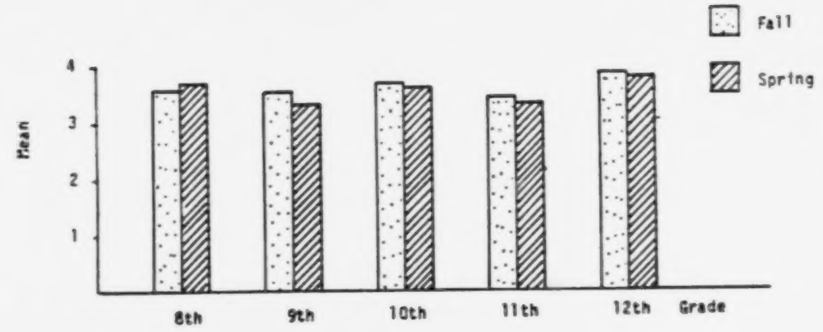
ESSAY SKILLS SHOWING LEAST GROWTH (STUDENT PERCEPTIONS)

Developing Paragraphs and Writing Conclusions

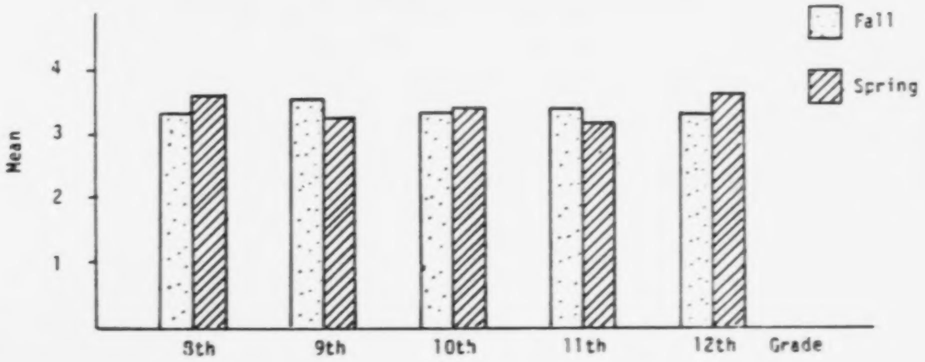
The skills that seemed to change the least from fall to spring were the students' perceived ability to develop a paragraph and write a conclusion. They sometimes report a deterioration in their ability between fall and spring. We see a recurring pattern: perception is high in the fall but declines in the spring (except in the seniors' perception of their ability to write conclusions).

Students rank these two skills fifth and sixth in usefulness, suggesting that of the seven essay skills, they were not top priority.

MEANS OF STUDENTS' SELF-EVALUATION OF WRITING SKILLS: DEVELOPING PARAGRAPHS
GRAPH 6



MEANS OF STUDENTS' SELF-EVALUATION OF WRITING SKILLS: WRITING CONCLUSIONS
GRAPH 7



SECOND-YEAR RESULTS

Self Evaluation

A statistically significant increase in students' perceived ability to do the essay-level skills occurs between the spring of 1982-83 and the spring of 1983-84. They are even more confident of their abilities the second year than they were the first. Eighth graders, as we observed from the first-year's data, probably perceive their abilities to be better than they actually are, but the students in the upper four grades are also positive about their abilities. For instance, the ninth graders in the second year's data surpassed the eighth grader's in their perceived ability to develop a thesis, an improved perception over their first year. The entire school's mean for perceived ability to develop a thesis is significant at the .001 level.

Growth, significant at the .001 level in all students' perceived ability to use evidence is even more dramatic in the second year (3.46 in the fall to 3.69 in the spring). Again, a significant growth in this skill is perceived at the eighth grade.

Summary of Improvement Items

Table 1, below, shows significantly improved test items for each grade and total group:

TABLE 1
Summary of Test Results

	GRADE					
Item	Total	8th	9th	10th	11th	12th
Thesis	***					
Organization						
Topic			*			
Paragraph				**		
Evidence	***	***			**	
Introduction	**					
Conclusion						

* Significant at Alpha = .05 level
** Significant at Alpha = .01 level
*** Significant at Alpha = .001 level

Student Perception and Student Knowledge

We tested the reliability of student perception by a definition test in order to answer Question #5: Based on a definition test, are student perceptions supported by their knowledge of the thirteen composing skills?

We can't take students' word for what they think they can do well. For instance, a student can claim to be proficient in using topic sentences, but not know what a topic sentence is. Students may know how to define a topic sentence but not know its relationship to a thesis. (The test of students' actual performance in essay-level skills will be discussed in Chapter 5.)

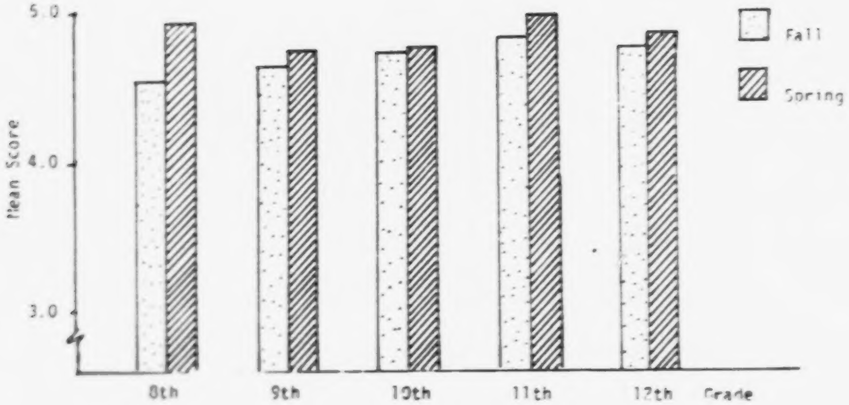
We learned that students were generally able to give satisfactory definitions for the seven essay terms. Coded on a five-point scale, the definitions were usually skewed toward the upper ranges, some place between incomplete (4.00) and satisfactory (5.00), indicating that the students have a general idea of the meaning of the essay-level terms.

There may have been some test bias between fall and spring both years because we gave the same test, without scrambling the items. After the fall test, students occasionally asked each other about a definition. We try to be consistent when we use the essay terms, but we define only in an informal way, never requiring students to parrot back the definitions. (If we were to do this part of the project over, we would probably devise a more discriminating code in order to distinguish satisfactory definitions from superior ones.)

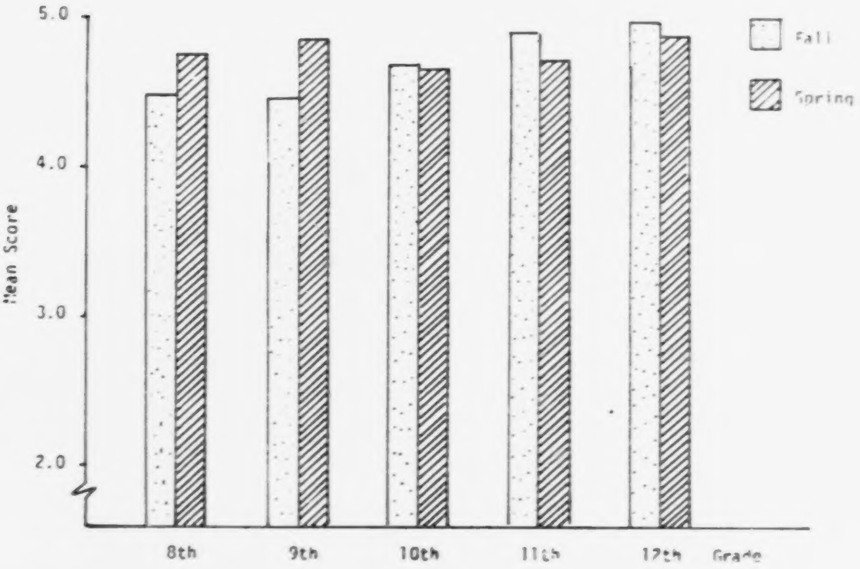
We cannot take all the credit for students' knowledge of the terms used in teaching the seven essay skills. Students come from grade and middle schools with some knowledge, particularly of paragraph, topic sentence, and evidence. They know, for example, that a topic sentence is the main idea of a paragraph, and a paragraph is a group of sentences on one topic. Therefore, their scores for paragraph and topic sentence are fairly high in the fall.

As students advance through the five-year program, their definitions become more sophisticated as they learn to tie their definitions of paragraph and topic sentence to the thesis. The definitions improve, peaking in the junior and senior year. Tenth, eleventh and twelfth graders give their best definitions of topic sentence in the fall. (We will discuss this downward trend later.)

DEFINITION TEST: PARAGRAPH
GRAPH 8

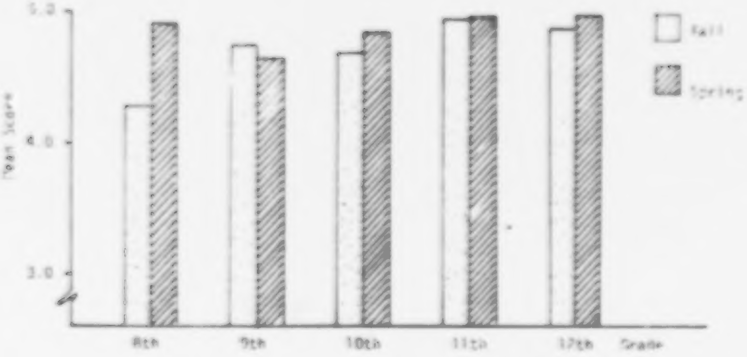


DEFINITION TEST: TOPIC
GRAPH 9



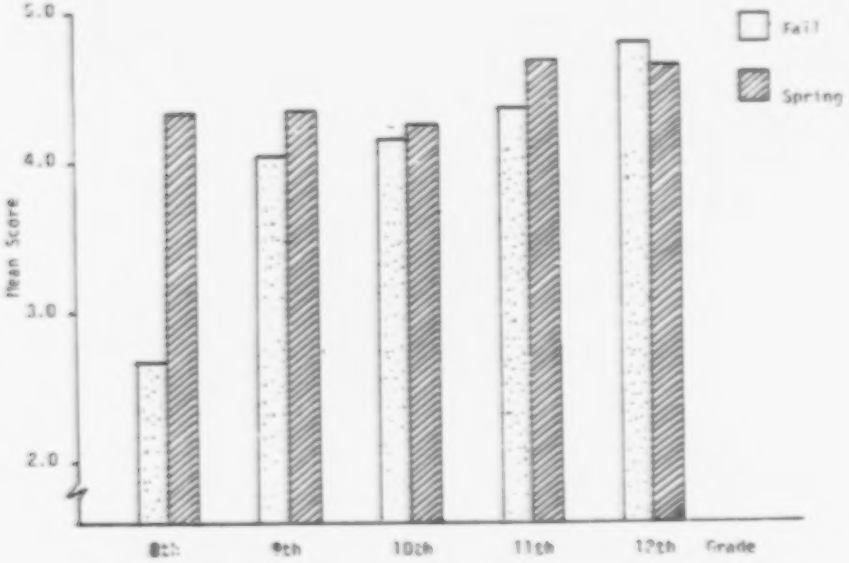
Eighth graders define evidence fairly well in the fall, giving definitions such as "The stuff you use to prove what you say." We required that the definition include some form of the term fact to be rated satisfactory. Most of the eighth graders included fact in their spring definitions because we see a sharp improvement by spring. After that we don't see as much improvement until the eleventh and twelfth grades.

DEFINITION TEST: EVIDENCE
GRAPH 10



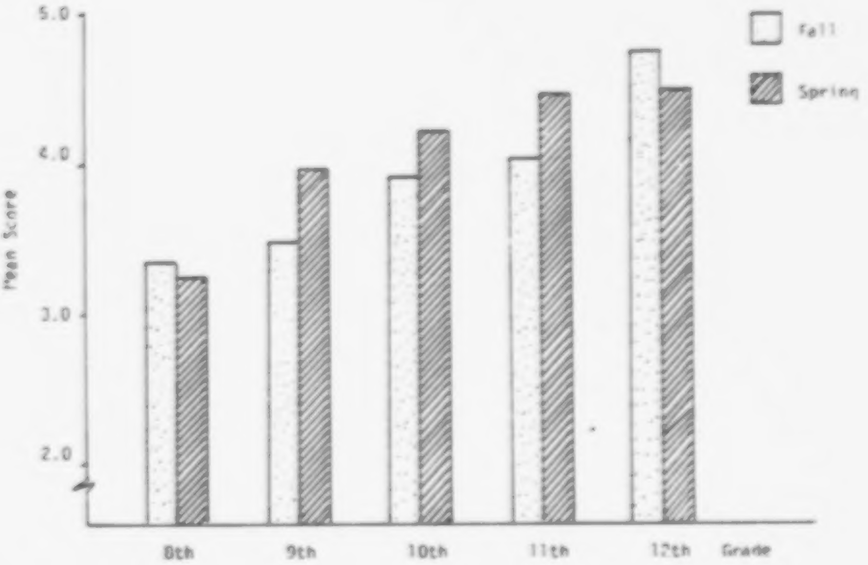
The definition of thesis improves gradually from eighth through twelfth grade, with the greatest jump occurring in the eighth grade. Generally eighth graders don't know the term in relation to the main idea of a paper. They often define it in the fall as "a paper written for an advanced degree".

DEFINITION TEST: THESIS
GRAPH 11



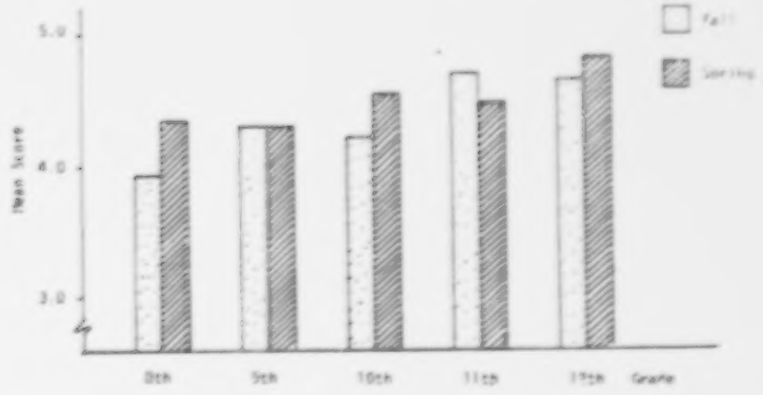
Eighth and ninth graders usually give circular definitions of *logical organization*, defining it as an organization that is logical"; consequently, we judged their definitions as either *incomplete* or *wrong*. It isn't until the upper grades that students begin to define the terms as "a pattern or sequence of ideas that helps the reader follow the development of the paper".

DEFINITION TEST: ORGANIZATION
GRAPH 12

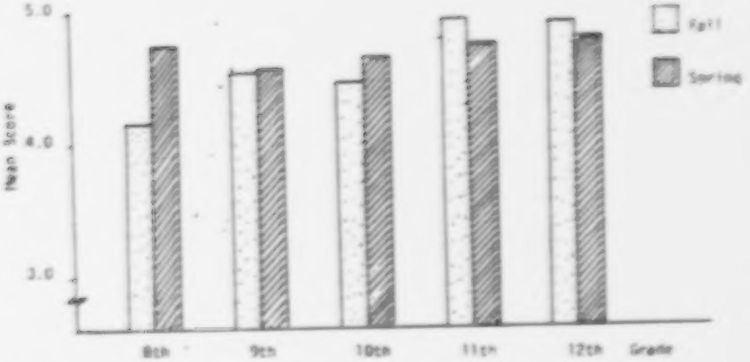


Many of the definitions for *introductions* and *conclusions* were judged *incomplete* because the students didn't report that at least one of the two should state the thesis. (Definitions of *conclusion* peak at the beginning of the eleventh grade, but drop, perhaps another indication of changing teacher expectations.) The definitions peak in the fall term of the senior year, even before the long argument unit.

DEFINITION TEST: INTRODUCTION
GRAPH 13



DEFINITION TEST: CONCLUSION
GRAPH 14



SECOND YEAR RESULTS - DEFINITIONS

In both years, the definition test was used to verify students' knowledge of the essay-level skills. The second year scores were significantly higher (statistically) than the first year scores, particularly at the eighth grade when the students were learning new terms. Even the seniors peaked in all of their definitions, particularly of evidence. (All of the seniors wrote satisfactory definitions, evaluated on a five-point scale.)

Summary of Improvement Items
Essay-Level Definition Test -- Second Year

Table 2, below, presents those test items that show a significant improvement from fall to spring for the total group and for each grade.

TABLE 2
Summary of Test Results

Item	GRADE					
	Total	8th	9th	10th	11th	12th
Thesis	***	***				
Organization	**					**
Topic						
Paragraph	**					
Evidence	***	***	*			
Introduction	***	**	***			***
Conclusion	**	***				

* Significant at Alpha = .05 level
** Significant at Alpha = .01 level
*** Significant at Alpha = .001 level

Since student definitions were significantly higher the second year we can probably account for the increase with two explanations: the students were becoming aware of the spiral nature of the composition curriculum; consequently, they learned that the terms we use are important. The teachers were probably more aware of the importance of defining terms, after seeing the first year results, so they were making an effort to use a consistent terminology.

Usefulness

We found that instruction has a positive influence on how the eighth grade students perceive the usefulness of the essay-level skills. For instance, in the fall, second year, the eighth graders believed that developing a thesis was ninth in usefulness but in the spring, they identified it as second in usefulness. They also identified writing a conclusion the second-most useful and writing introductions the third most-useful skill in the fall. But in the spring, they identified the two as fourth and fifth, more in line with the perception of the rest of the students. Eighth graders identify organization as a necessary skill, giving it a first in usefulness.

In the spring of the second year, all of the students agree with their first-year perceptions by identifying developing a thesis and using a clear organization as the two most-useful essay-level skills, with using evidence third in usefulness.

The second year's data reinforces what we learned from the first year; students perceive the essay-level skills as being the most important of the composition skills, and they are positive about their ability to perform those skills.

DISCUSSION: DEFINITIONS

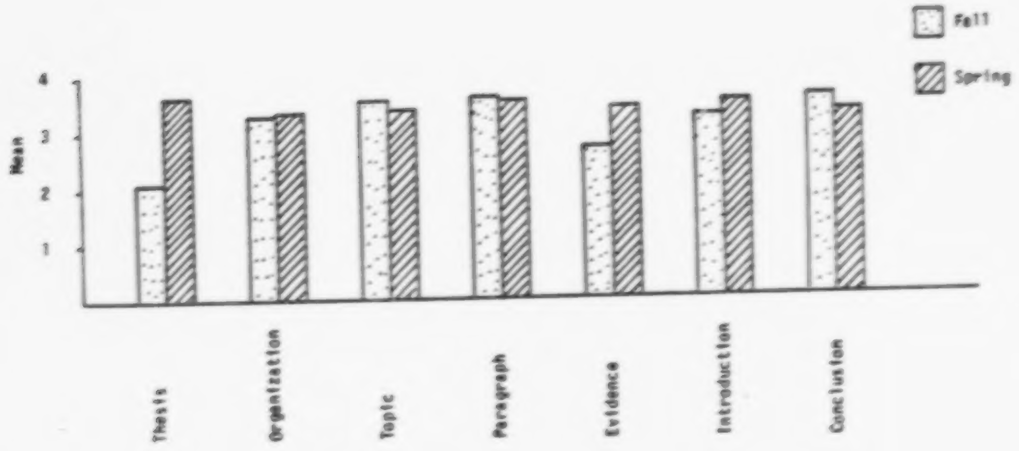
Students' perception of their abilities to use the composition skills seems well-supported by their ability to define the seven skills. We see a growth in the first two grades when the terms may be used in the context of writing an essay for the first time. It is possible that the teachers of eighth and ninth grades may be defining the terms more often because some of the students are not familiar with them. Teachers of the upper grades may assume that the students know the terms; therefore, they feel no particular need to keep defining them.

It is obvious that the older students took the definition test less seriously in the spring than in the fall (except for instances when the seniors tied their definitions to the debate unit). This failure to take the test seriously may account for the lack of improvement in the upper grades. Perhaps we were at fault for not developing a different instrument for the spring so that there wouldn't be repetition -- repetition that the students were quick to point out to their teachers.

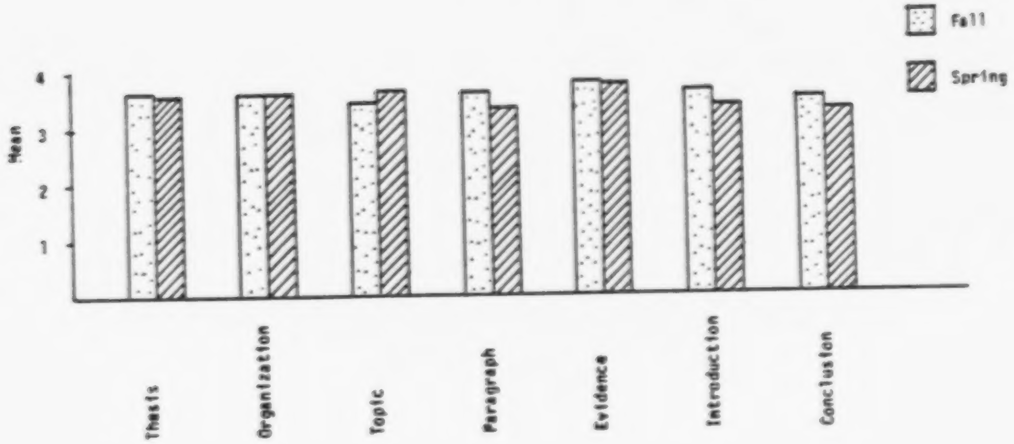
However, we are not surprised that the older students didn't take writing the definitions seriously in the spring, even though it appears the other two questionnaires interested them. It is one thing to be required to circle a number and quite another to be required to think about and write a definition. Since we are an experimental school, students are the subjects of many research projects in their five-year high school careers. As a result, they get bored with questionnaires and with being "practiced on".

But how realistic are students' perceptions of their abilities in essay skills? Knowing something about our curriculum, we would draw three generalizations: first, the younger students are generally over-confident; second, over-confidence decreases by the end of the ninth grade; and third, confidence grows in spurts until the twelfth grade, when students seem to be quite confident in their ability to use the essay skills.

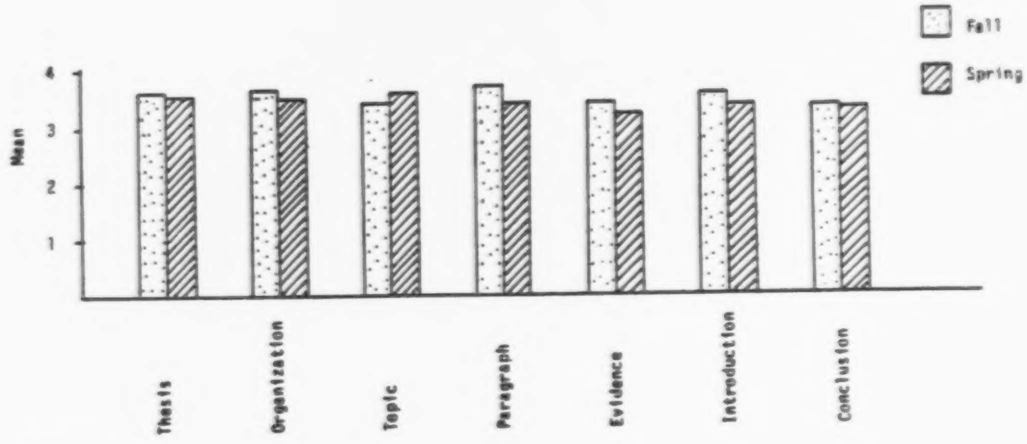
MEANS OF 8TH GRADERS' SELF-EVALUATION
OF ESSAY-LEVEL SKILLS
GRAPH 15



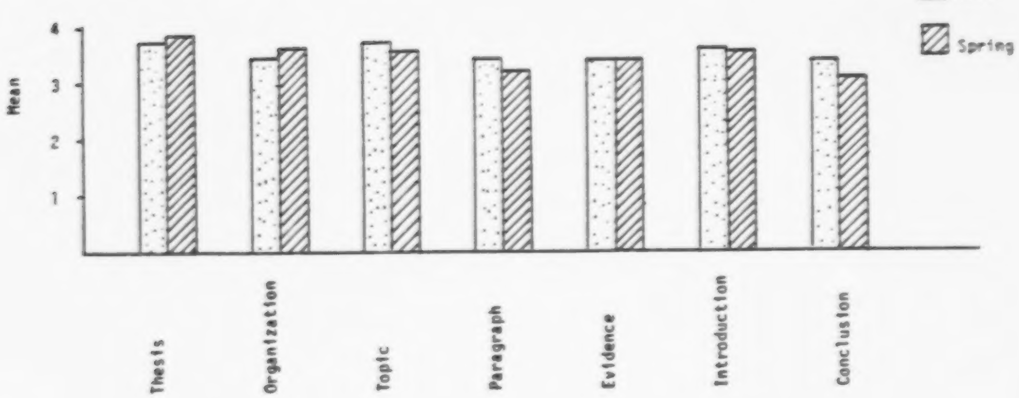
MEANS OF 9TH GRADERS' SELF-EVALUATION
OF ESSAY-LEVEL SKILLS
GRAPH 16



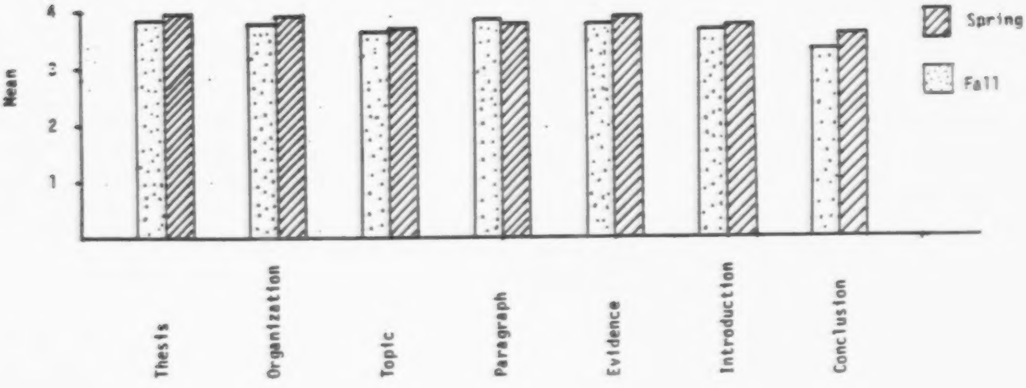
MEANS OF 10TH GRADERS' SELF-EVALUATION
OF ESSAY-LEVEL SKILLS
GRAPH 17



MEANS OF 11TH GRADERS' SELF-EVALUATION OF ESSAY-LEVEL SKILLS
GRAPH 18



MEANS OF 12TH GRADERS' SELF-EVALUATION OF ESSAY-LEVEL SKILLS
GRAPH 19



Student Perception and the Curriculum

The curriculum may cause eighth and ninth graders to be overconfident. In the early grades, students get a lot of help in prewriting -- collecting evidence, developing a thesis, and organizing. At the eighth grade, theses are developed in small- and large-group class discussions with guidance from the teacher. At that grade they have a limited idea of what it means to develop a thesis without help. In addition, the evidence-collecting stage at both the eighth and ninth grades comes from class analysis of literature. The teacher generally focuses on the writing topics, helping students to find and list evidence that will provide proof for the thesis. Consequently, students have a ready store of material to draw from when they are ready to prove a thesis.

Ninth, tenth, and eleventh graders gradually become more independent in using these stages, so they come to realize that composing may not be as easy as they had first believed. Their lack of certainty about their abilities begins at the ninth grade and continues up to the twelfth grade.

Ninth graders evaluate their ability to develop a thesis less positively than the eighth graders. At the ninth grade, students are expected to develop their own theses without as much help from the teacher or the class. They are also expected to find and classify their own evidence. We teach a long paragraph unit at the ninth grade, but see their confidence in developing paragraphs go down. (Surprisingly, their confidence in writing topic sentences improves rather significantly at this grade level.) Except for their perceived ability to write topic sentences, no significant gains occur in essay skills at this grade level.

At the tenth grade, students report less confidence in their ability to organize, use evidence, and write topic sentences. The curriculum may account for some of this drop. At this level, the students must select the topic, organize their evidence, and develop the complete essay on their own. Finding specific evidence that matches the topic and thesis is difficult for some students. We also expect them to phrase a thesis so that it suggests a pattern in the outline. We also teach students how to check the outline for logic.

Good and poor examples of outlines and theses are analyzed to see how they can be improved. Through class discussion, outlines are reorganized and new topic sentences formulated, so it isn't surprising that tenth graders feel more uncertain about their ability to perform certain essay skills.

According to student perception at the eleventh grade, most essay skills remain stable or deteriorate. However, perceived ability to develop a thesis and organize show some gains. At this level, students learn to use a variety of rhetorical strategies. They gain experience in organizing definition, cause-effect, and process papers. They write analogies and refine their comparison/contrast and classification skills, thereby enhancing their abilities to develop a thesis and to organize.

Seniors, on the other hand, have had five years to perfect their essay skills. By the spring of the senior year, they have become independent in their search for evidence and development of an organizational plan. By spring, they have completed a year-long research unit, studying sophisticated topics such as deployment of nuclear missiles and the exclusionary rule. They know how difficult collecting and organizing evidence can be, but they have had considerable success in researching, organizing, and delivering an argument designed to convince an audience.

Their confidence in all essay skills is based on five years' experience in writing sophisticated forms of exposition and argument. For instance, they have developed extensive argumentative introductions which require an analysis of the history of the question, the reasons for discussing the question, and definition of terms. Their conclusions are perorations, using emotional appeal, and calling for concurrence with a proposition of action. It is no wonder that their perception of ability to do nearly all essay skills is highest by the end of the senior year. They know what they can do.

Student Perception and Teacher Expectations

We believe that it is important to maintain a reasonable amount of consistency in the way we teach the essay skills. We have frequent staff meetings to discuss the curriculum, and we use a composition textbook. But if a teacher imposes a different set of criteria than those we have agreed upon or those that are recommended in the textbook, this shift in expectations may create uncertainty in students. The significant drop in ability to write conclusions at the eleventh grade may be the result of a shift in teacher expectations.

For example, the curriculum calls for rather straightforward conclusions in essays. We instruct students to (1) sum up the evidence without introducing new points or new evidence, and (2) restate the thesis (in an innovative way, if possible). These requirements for writing conclusions may seem trite, but they give beginning writers practical guidelines to follow.

But the teacher of juniors, in the period of this project, shifted requirements. She said that she didn't expect students to write conclusions that were "neat and straightforward". She wanted conclusions that did more than "wrap up the paper". Therefore, she required open-ended conclusions, leaving the reader with "a continuing thought". This shift in requirements or expectations may have been a contributing factor in the drop of perceived ability to write conclusions by the end of the eleventh grade. No other essay skills plunged so dramatically. Note, however, that with experience in writing argument conclusions behind them, students show significant growth by the end of their senior year (3.38 - 3.59).

Even if University High School weren't an experimental school, there would be a certain amount of what seniors like to call their "slump". They are proud of their ennui. They have been admitted to the "colleges of their choice"; they have worked hard for five years in a demanding college-prep curriculum; and they are ready for new challenges. And we think we have "stretched" them as far as our expertise and patience allows.

On the other hand, this study reflects the vigor and enthusiasm of the younger students. All of the questionnaires show growth in the first two grades. They were particularly excited about being able to define the terms at the end of the ninth grade, when they said to their teacher in the spring:

> "Thank you, Miss _______ for letting us define those terms. It was so neat to know what to put on those definitions."

The staff's enthusiastic response to the study reflects the emphasis we place on essay skills in our composition curriculum. One fairly inexperienced teacher said: "They really know that they have to back up what they say -- thesis first, then evidence. It's wonderful." Another more experienced teacher said: "Students seem to know what the broad picture is. They know what they're supposed to be doing."

We spend a lot of time teaching students to develop a thesis and use evidence to support that thesis, so having the students identify these two skills as most useful and ones in which they perceive the most ability is a reasonable effect of the curriculum's emphasis. A logic unit taught in the spring of the eighth grade, emphasizing the use of evidence in chains of reasoning, may account for the high score shown in their definitions of evidence at that level.

We are not surprised that students consider the skills of writing introductions and conclusions less important than thesis and evidence because to them they probably seem too pat. In addition, most of our efforts go into developing and organizing the body of an essay, not the beginning and ending.

Past the tenth grade, writing topic sentences and paragraph development receive less emphasis. At the upper grades, students learn about other paragraph techniques -- "creative repetition", the "hook", and the "promise pattern".

Younger students may have more confidence than their skills warrant. Older students recognize that writing an essay is not as simple or straightforward as they thought when they were first introduced to the process. They also become more critical of their own progress, so their confidence in ability doesn't increase as rapidly as when they were younger.

Students do a great deal of writing at University High School, so they learn that some topics interest them more than others, and that some topics are easier to organize than others. Some days they simply don't do very good work. They may also learn, as they get older, that each writing task is compeltely different from the others, but they must go through some kind of process each time. Just because a previous paper was good doesn't necessarily guarantee that the next one will be.

It seems that the more students practice the process of composing the more they perceive their abilities in a realistic light. Confidence in their abilities increases in a general upward trend.

END NOTES
Chapter 3

1. We use the term skills here in order to talk about a class in an efficient way. See Appendix III, Tables 1 and 2 for student perception and Tables 5 and 6 for their ranking of usefulness.

CHAPTER 4*

Syntax-Level Skills -- Student Perception

To get the answers for how students perceive their ability to handle sentence-structure skills, we administered the same four forms used for the essay-level skills. The sentence-structure items were the last six items on all of the forms: opener, interrupter, closer (called free units), sentence variety, signal, and parallelism. We coded the definitions for the syntax-level skills the same way we coded the essay-level skills, using a five-point scale with answers that ranged from no answer to incorrect to incomplete to satisfactory.

1. A sentence opener is a free unit (word, phrase, or clause) placed before a base, separated from the base with a comma.

   Incomplete: A phrase at the beginning of a sentence, separated from the main sentence by a comma. Or: A word or few short words which introduces a sentence.

   Incorrect: The beginning of a sentence.

2. A sentence interrupter is a free unit placed in the middle of a base, separated from the base with punctuation.

   Incomplete: A phrase in the middle of the sentence base, separated by commas.

   Incorrect: Words placed in the middle of a sentence.

3. A sentence closer is a free unit (word, phrase, clause) placed at the end of a base, separated from the base by punctuation.

---

*See Appendix III, Tables 1 to 6 for additional support for this Chapter.

Incomplete: A phrase at the end of a sentence, separated by commas.

Incorrect: Words used to end a sentence.

4. For the five sentence types, the students were expected to list them: S-V, S-V-O, S-LV-C, S-PV, It/There. Or they could write sentence-examples of each.

5. A signal is a word placed at the beginning of a sentence or sentence base, showing the reader the direction the sentence will take.

   Incomplete: Sentence links such as subordinators and coordinators.

   Incorrect: A phrase which hints at the upcoming material.

6. Parallelism is the listing of sentence elements which are roughly equal in importance or emphasis, often written in the same grammatical form.

   Incomplete: Using the same verb tenses in a sentence.

   Incorrect: A list.

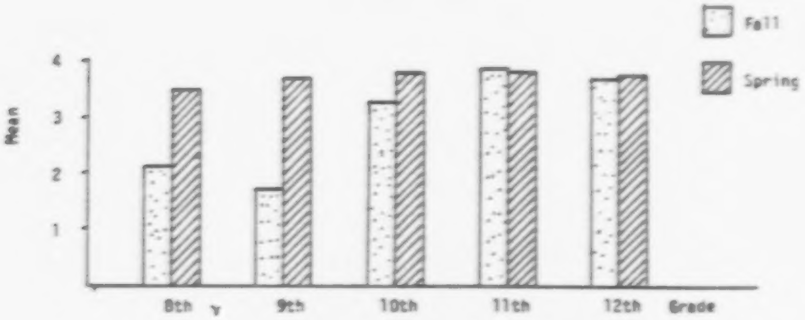
According to student perception, the sentence-structure skills improve more significantly (in statistical terms) than the essay skills. This growth may be explained by the fact that the terms in our sentence-structure lessons are different from those generally used in the grade schools; therefore, students do not enter the school with knowledge of our terminology. As a result, the statistical evidence may seem more significant than it actually is. In our handling of the statistical data, we have ranked the sentence-structure growth (as perceived by the students) into three classes: (1) student perception showing a statistically significant growth over the one-year period; (2) perception showing medium growth; and (3) perception showing little or no growth. (Even though the statistical analysis shows a significant growth in students' perception of their ability to use parallelism, for reasons that we will explain later, we have chosen to classify parallelism as a skill that shows very little growth.)

SYNTAX-LEVEL SKILLS SHOWING MOST GROWTH (STUDENT PERCEPTION)

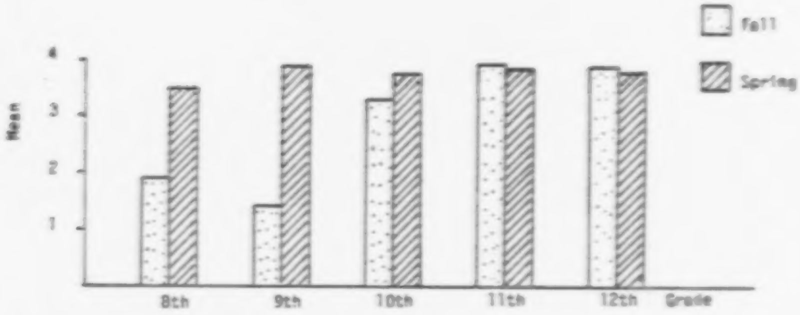
Free Units

The entire student body reports that their ability to use free units -- openers, interrupters, closers -- improves significantly from fall to spring (at the .001 level). Even eighth graders who had been introduced only briefly to free units indicated an improvement in their ability to use them. They perceived their ability at the lowest end of the scale in the fall because they did not know the meaning of the terms. Their ability to use openers goes from 2.12 in the fall to 3.33 in the spring; interrupters from 1.90 in the fall to 3.33 in the spring; and closers from 1.83 to 3.33 in the spring. (A 3.00 indicates that they think they "need lots of help" in using the free units.) Therefore, even though we see a significant statistical improvement in their ability to use free units at this grade level, their perception falls well below the proficiency ranking of 4.00, or believing that they can "do the skill well". They "need lots of help" because they haven't been taught the sentence base system at this grade level.

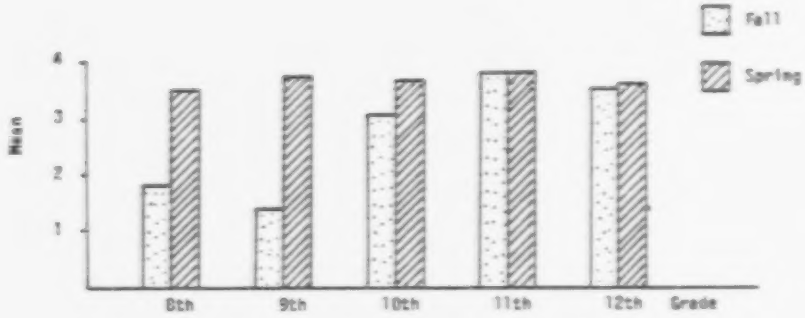
MEANS OF STUDENTS' SELF-EVALUATION OF WRITING SKILLS -- OPENER
GRAPH 1



MEANS OF STUDENTS' SELF-EVALUATION OF WRITING SKILLS -- INTERRUPTER
GRAPH 2



MEANS OF STUDENTS' SELF-EVALUATION OF WRITING SKILLS -- CLOSER
GRAPH 3



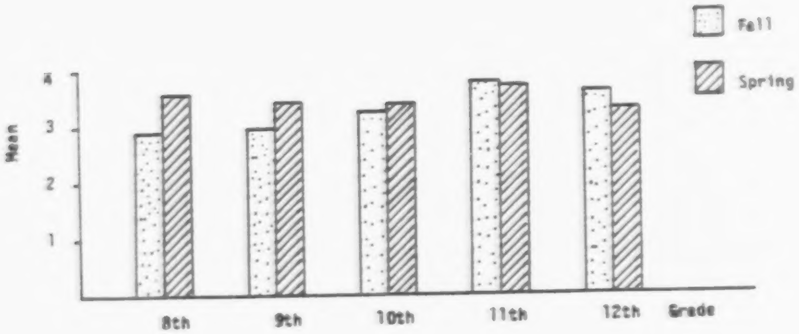
Students find the *free units* -- *openers*, *interrupters*, and *closers* -- the *least useful* of the thirteen composition skills, ranking them 11th, 12th and 13th. Even at the ninth grade, where the curriculum introduces the sentence-base lessons, the *free units* tie at 11th place in *usefulness*. At the tenth grade, we see a similar evaluation -- even though a long review unit is taught at this level. (*Openers* and *interrupters* tied at 11.5 in *usefulness*, and *closers* earned a 13th at this grade level.)

SYNTAX-LEVEL SKILLS SHOWING A MODERATE GROWTH (STUDENT PERCEPTION)

Sentence Variety

Since all of the student body showed only a moderate growth in their perceived ability to write varied sentences, most of the student body believes that they need a lot of help in writing varied sentences.

MEANS OF STUDENTS' SELF-EVALUATION
OF WRITING SKILLS -- SENTENCE VARIETY
GRAPH 4



Students (general population) rank sentence variety as the most useful of the six syntax skills (or eighth after the seven composition skills). Only at the eighth grade level, when the five sentence types are introduced and practiced, do the students rank the skill seventh, before paragraph structure.

SYNTAX-LEVEL SKILLS SHOWING LOW OR NO GROWTH (STUDENT PERCEPTION)

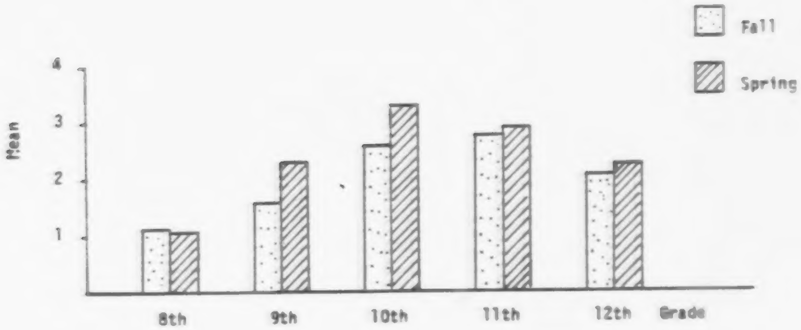
Parallelism

All of the students are tentative about their perceived ability to use parallelism. Even though the statistical analysis shows that they make a significant growth, the entire student body moves, during the course of the year, from only 1.99 to 2.36, indicating that most of the students really don't know whether they can use the skill. In the main, eighth graders do not know what parallelism is. Statistically, the ninth graders make significant growth, but they still don't know whether they can use the skill. Tenth graders also show significatnt growth in statistical terms, but they don't progress much past "needing lots of help" (3.00) in the spring. Eleventh and twelfth graders show some growth, but they drop down below "needing lots of help" to "not knowing if they can do the skill well" (2.00).

Even though they aren't very confident in their ability to use parallelism, students rank it anywhere from 8th to 12th in usefulness, with the entire student body ranking it 9th, higher than the free units, skills that they claim they can perform better than parallelism.

(We might conjecture that what students *can do* is less important to them than what they *can't do*. Perhaps they believe that they can write sentences with *free units*; therefore, that skill isn't as important as writing *parallelism*, a skill they think they *cannot* do well.)

MEANS OF STUDENTS' SELF-EVALUATION
OF WRITING SKILLS -- PARALLELISM
GRAPH 5

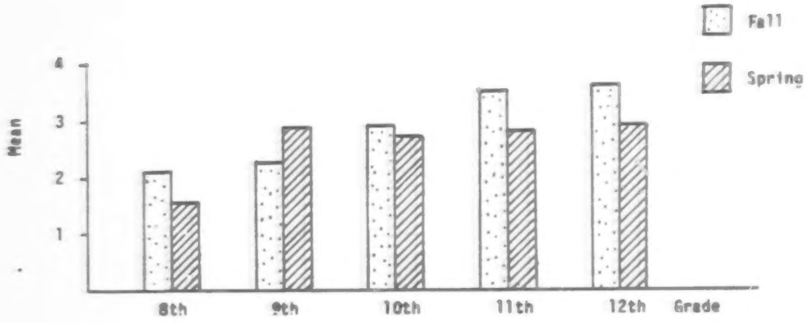


Signals

There is a significant lack of growth in students' perceived ability to use *signals*. Eighth graders evaluated their ability in the fall higher than in the spring, probably because they weren't taught *signalling* during the eighth grade. In the ninth grade, the students show a statistically significant growth in their perceived ability to use *signals*, but they do not feel very confident because the class doesn't claim to have reached the 3.00 mark, indicating that even they think they "need lots of help". This lack of confidence exists even after being taught a long unit on *signals*. Tenth, eleventh, and twelfth graders' perceptions drop during the course of the year.

In spite of their negative feelings about using *signals*, they rank the *usefulness* of the skill as 9th or 10th (except for ninth graders, who ranked it 13th). All of the students rank using *signals* above *free units* in importance, even though they perceive their ability to use the *free units* higher than they perceive their ability to use *signals*. Apparently, they believe that using *signals* is *useful*, but they aren't sure that they know *how* to use them.

MEANS OF STUDENTS' SELF-EVALUATION
OF WRITING SKILLS -- SIGNAL
GRAPH 6



STUDENT PRECEPTION AND STUDENT KNOWLEDGE

None of the syntax-level definition scores first year, were high in the fall. They were evaluated in the range between 1.91 and 2.97 (below incorrect). This is in contrast with the definitions of essay-level terms, where the range fell between 3.87 and 4.70 in the fall, indicating that the students' definitions in the fall were generally above *incomplete* (4.00) and in the upper ranges toward *satisfactory* (5.00).[1]

Only two of the syntax-level definitions were evaluated above the 4.00 mark (incomplete definition) in the spring, but all of the essay-level definitions were above 4.00. This inability to define the syntax-level skills causes the total school mean for all definitions to fall below the 4.00 mark -- 3.18 in the fall and 3.80 in the spring.

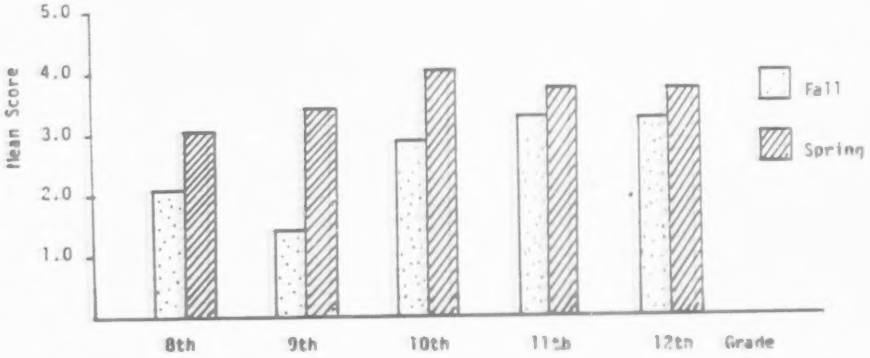
Free Units

The entire student body shows improvement in the ability to define the free units -- openers, interrupters, closers. But this improvement moves only half-way above incorrect in the spring. The eighth and ninth graders (in the fall), before they have been introduced to the terms, make a valiant effort to define the free units, giving circular definitions: an opener opens a sentence; an interrupter interrupts a sentence; and, a closer ends the sentence -- all incorrect but earning them an increase on the scale (spring). Many ninth graders left the item blank so their definition scores for free units fell well below incorrect. However, we see a marked improvement in their ability to define them after they have studied the sentence base grammar, moving past the 3.00 mark in the spring: opener 3.41, interrupter 3.21, and closer 3.33, scores that are still too close to the incorrect range for us to be sure that they know what the free units actually are. (One reason that students failed to give satisfactory definitions lies in their use of sentence instead of sentence base. For example, a definition of interrupter as a group of words added to the middle of a sentence would be evaluated as incorrect.)

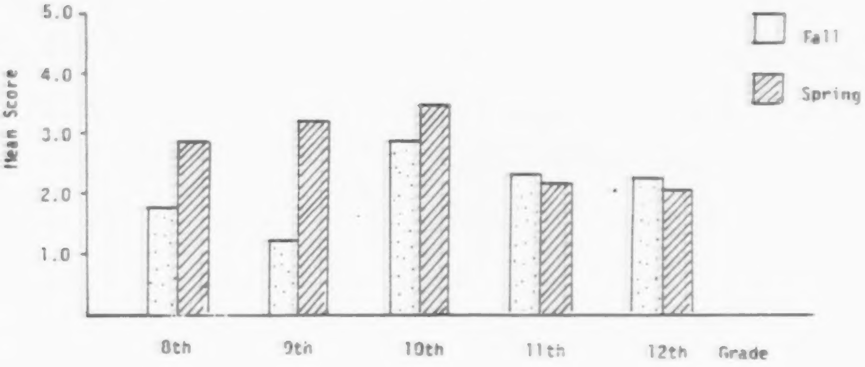
Definitions of free units improve significantly at the tenth grade, with definitions of openers and closers coming closer to 4.00 (in the spring) than at any other time in the five year sequence.

We are obviously doing a poor job of distinguishing between sentence and base in our grammar instruction. If we were to do the project again, we would ask the students to define base and free unit. In that way, we might lead them to make a connection between these. For instance, if the students had defined interrupter as a free unit (which they generally did not do), their definitions would have been counted as incomplete (4.00), but higher than incorrect (3.00), as most of them were.

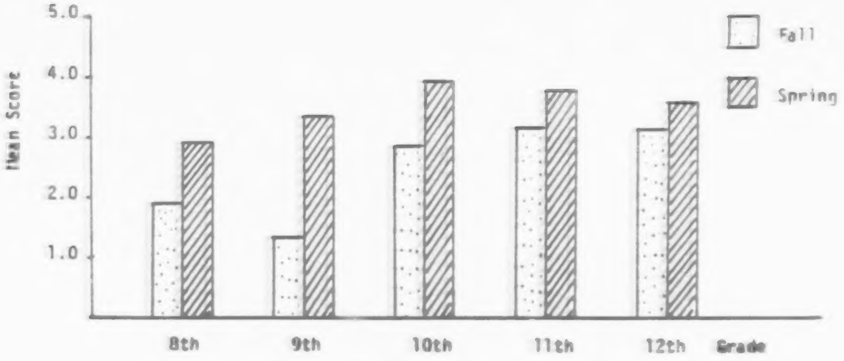
DEFINITION TEST: OPENER
GRAPH 7



DEFINITION TEST: INTERRUPTER
GRAPH 8



DEFINITION TEST: CLOSER
GRAPH 9

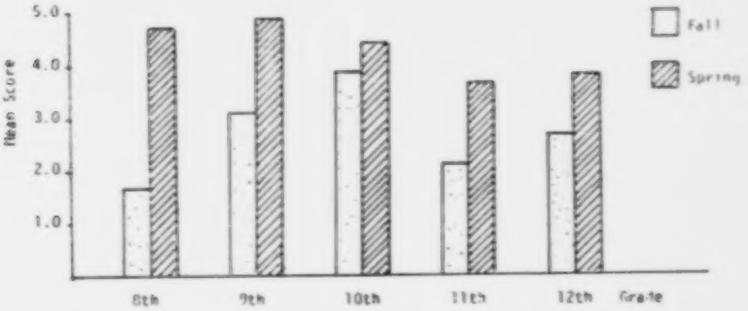


Sentence Variety

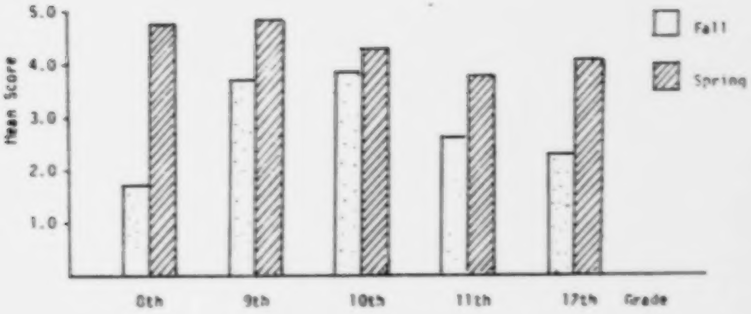
To test knowledge of sentence variety, we asked students to list the five sentence types. All of the students improved in their ability to list them, with the highest degree of success occurring in the spring of the ninth grade. Some of the eighth and ninth grade students and the juniors used the wrong classification of sentence, a classification system we don't ordinarily teach:

imperative, interrogative, exclamatory, declarative. These definitions were evaluated as 2.00 -- wrong class. The eighth graders learned these terms in grade school, and the juniors learned them from the Heath Handbook.

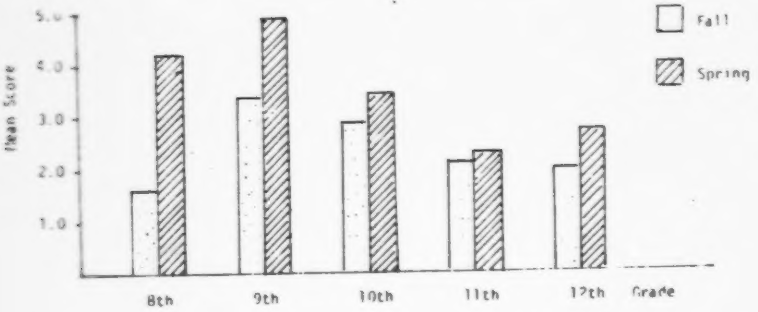
DEFINITION TEST: SENTENCE TYPES (S-V)
GRAPH 10



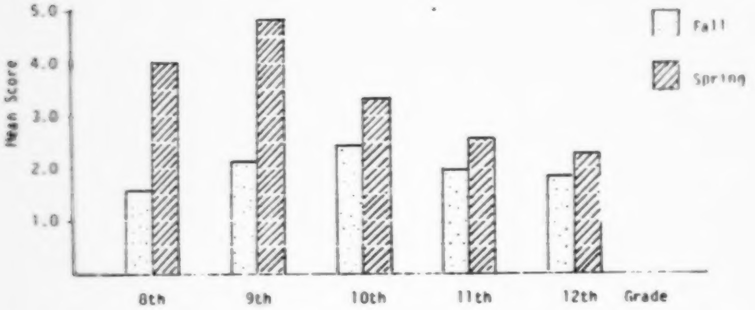
DEFINITION TEST: SENTENCE TYPES (S-V-O)
GRAPH 11



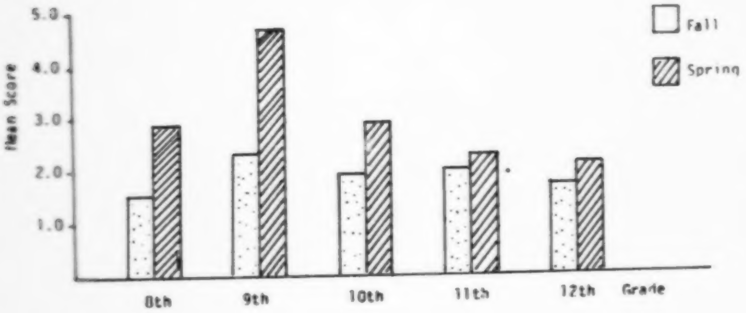
DEFINITION TEST: SENTENCE TYPES (S-LV-C)
GRAPH 12



DEFINITION TEST: SENTENCE TYPES (S-PV)
GRAPH 13



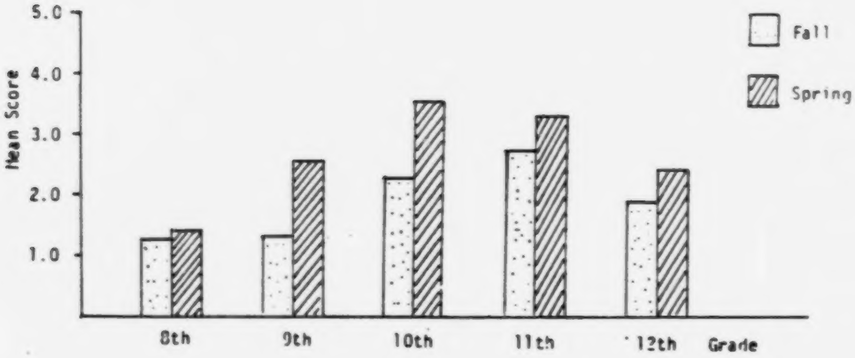
DEFINITION TEST: SENTENCE TYPES (EXPLETIVE)
GRAPH 14



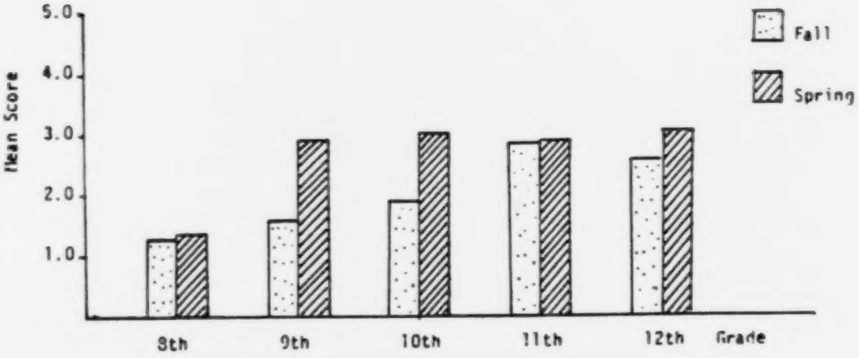
Parallelism and Signals

As might be expected, the students at all grades had difficulty defining these terms. Even at the ninth and tenth grades where considerable class time is spent studying sentence base grammar, they couldn't define them. After studying parallelism in the Heath Handbook, the juniors still couldn't define it, probably because the Handbook teaches by example.

DEFINITION TEST: PARALLELISM
GRAPH 15



DEFINITION TEST: SIGNAL
GRAPH 16



THE EFFECT OF REALITY ON STUDENT PERCEPTION -- SYNTAX-LEVEL SKILLS

If student evaluation of usefulness is a sign of our effectiveness as teachers, we are not as successful in teaching the syntax-level skills as we are in teaching the essay-level skills. According to students, they perceive their abilities to use sentence skills much below the essay skills, and they also find the sentence skills less useful. Perhaps one reason students aren't as confident in using syntax skills is that they are aware of using them at the editing or rough-draft stage rather than at the planning stage. Perhaps they believe that once they get a thesis, the evidence, and an organizational plan, their sentences will take care of themselves. This may cause them to perceive sentence skills as less useful than essay skills.

We should consider the possibility that our questionnaires caused some of the results in perception. For instance, it is possible that our listing of the essay-level skills first led students to believe that the skills listed first were more important than those listed last. It is also possible that the terms sentence variety and parallelism were not clear in the questionnaire.

To explain why students' perception of their abilities to perform the syntax skills are so low, we will (1) take a look at our curriculum, (2) discuss the teachers' expectations, and (3) evaluate the students' knowledge of the syntax terms. We may find some causes for the students' lack of confidence in using these skills.

STUDENT PERCEPTION AND THE CURRICULUM

We begin our syntax lessons at the eighth grade with an introduction to the five sentence skeletons -- or types:

1.	It/There-V-S	The girl laughed. The girl was there.
2.	S-V-O	John hit Mary.
3.	S-LV-C	I am a jerk. She is happy.
4.	S-PV	Mary was hit by John. Mary was hit. (?)
5.	It/There-V-S (Expletive)	It is time to leave. There was nothing to do.

Along with the sentence skeletons, we teach various methods of adding simple modifiers to the subject and predicate, thereby expanding the sentence. A long spelling/vocabulary unit parallels the sentence lessons, so students use the five types in writing sentences with the spelling words. For instance, we might ask students to write an S-V-O sentence, using *disgraced* as the main verb. Then we might ask them to use *disgraced* in a S-PV sentence. Or we might ask them to combine two sentence types in a variety of ways, teaching punctuation and coordination.

In the ninth grade, after reviewing the five sentence types, we introduce the additive grammar lessons. We call the system *Sentence Base Grammar* (based on the work of Francis Christensen) because, in this system, the *base* is the fundamental unit of the sentence. We generally define base as an unpunctuated complete statement to which FREE UNITS can be added -- to the front (opener), to the end (closer), or in the middle (interrupter).

Opener (free unit)	Before he learned to cook soup and stew,
Base	MIKE
Interrupter (free unit)	(my roomate)
Base (continued):	ALWAYS THREW LEFTOVERS AWAY --
Closer (free unit):	a habit which cost us money in wasted food.

We teach that the units are separated by punctuation; consequently, students get a practical view of punctuation through studying additive grammar.

Coordination, subordination, and parallelism are also taught and drilled at this level. Sentence signals (or short openers) of time, logical relation, similarity, and contrast are also introduced. The same process occurs at the tenth grade: review of the sentence base rule, practice in writing sentences, applying the punctuation rules, and a review of parallelism, subordination, and coordination.

Direct instruction of sentence base grammar stops after the tenth grade. What the teachers do at the upper levels depends upon the needs of the students and on how well they write sentences in the context of an essay. We have expected all the teachers, however, to learn the additive grammar system and to apply the terminology when they discuss syntax problems with their students.

The sentences that students write in the context of their essays form the basis for most of the grammatical instruction at the upper two levels. The teachers select typical sentence-structure problems from the essays, then discuss how they can be improved. We believe that this process is a useful way to teach editing techniques and proofreading to our older students. We advise teachers to be consistent in their use of terminology and to reinforce the principles of additive grammar taught in the first three grades. We ask them to be particularly diligent about teaching parallelism because we believe that it is very important.

The results of this study show the serious consequences of failing to provide a sentence base unit for the eleventh and twelfth grades. We shouldn't have assumed that teachers would use a system that they hadn't taught. For instance, the junior teacher, with permission, taught from the Heath Handbook of English (Complete Course) (1965 edition) with the understanding that she would make connections with the sentence base terminology. The sentence classification system is so different from the one we use in the sentence base grammar, the new terminology may have confused the students.

The senior teacher used Warriner's terms. She did not reinforce either the sentence base terminology used in grades 8 - 10 or the concepts. Her rationale for using the traditional terms like complex sentence was that she didn't want the students to be confused when they were taught traditional terms in college freshman composition.

Let us see how this lack of consistency -- at all levels of the curriculum -- may have caused the students to be less confident about their syntax skills than they were in the essay skills.

Free Units

By failing to introduce bases and free units to the eighth grade, we have lost an opportunity to give students a solid five-year course in additive grammar. We introduce them to sophisticated essay-level skills -- such as thesis and logical organization of evidence -- which may contribute to their confidence in using those skills. By starting our additive grammar lessons in the ninth grade, we haven't given the younger students enough practice.

In addition, we haven't been careful enough to see that the additive grammar is reinforced at the two upper grades. The Heath Handbook, used in the eleventh grade, discusses arrangement of sentences. The authors take an "error approach" to sentence-structure rather than teaching syntax in a positive way. For example, the Handbook discusses dangling participles, dangling elliptical clauses, and misplaced modifiers. Each of these elements we discuss positively by showing students how to use openers, interrupters, and closers, so we do not teach traditional grammatical terminology. We feel that these elements can be handled efficiently and with less confusion with the sentence base grammar.

The juniors and seniors received no reinforcement of free units. The seniors were introduced to the definitions of restrictive and non-restrictive elements from the Random House Handbook (2nd edition), and judging from the results of the study, these definitions may have confused them.

> restrictive element A modifier, often a phrase or clause, that "restricts" or establishes the identity of the modified term...
>
> non-restrictive element: A modifier, often a phrase or clause, that
>
> doesn't serve to identify ("restrict") the modified term...

The teacher should have used the terminology the students had been introduced to earlier because a restrictive element is a bound unit, and a nonrestrictive element is a free unit. These items are simpler and more useful terms. As a result of no reinforcement, juniors and seniors don't find using free units very useful, and their confidence in using them is limited.

Sentence Variety

Even though we spend a lot of time on the five sentence skeletons in the eighth and ninth grades, no one after that teaches them. In the Heath Handbook, the following kinds of sentences are covered under the heading Varied Sentences, (p. 204-207):

Short Sentences
Long Sentences
Question, Exclamation, Command

Subject Not First

Complex

Compound Predicate

More Participles and Gerunds

Adjective After Noun

A mixed bag, indeed. No wonder that students at the junior and senior levels believe that they "need lots of help in writing a variety of the standard sentence types". They may not know what the standard types are since they have been introduced to so many different categories of the sentence.

Parallelism

In explaining the students' lack of confidence in using parallelism, we should consider the various ways we use the term. In the eighth grade, we tell the students to keep the main points of their outlines parallel -- or we tell them to use categories on the same level of abstraction or specificity. Perhaps they believe that parallelism is a term used only in outlining.

The tenth grade teacher uses the term in teaching the thesis. For example, in the first semester, where the illustration mode (or five-paragraph theme) is the dominant organization strategy taught, the teacher expects the thesis to contain three prepositional phrases or three noun clauses. By the second semester, the students begin to break out of the highly-structured five-paragraph theme format and begin to use implied parallelism in their theses.

It is possible that tenth grade students see parallelism as a structure useful only for the thesis.

It may also be that our questionnaires were not specific enough. We wanted the students to define parallelism and evaluate their ability to use it in the context of sentences in an essay. We may not have made that clear when we asked them to evaluate their ability in "using parallelism".

Signals

Even though the eighth grade lessons introduce coordinating conjunctions, subordinating conjunctions, and sentence connectors (hereafter, consequently, nevertheless), we never use the term signal in the eighth grade. We should introduce the term before the ninth grade if we want students to have a longer association with the term. The Heath Handbook uses the term connectives, covering conjunctions (without actually naming them). When and where are covered in the discussion. Reviewing the material on signals in the sentence base grammar would have provided more accurate information about connectives. At the senior level, the teacher does a lot of work with transitions, but she says she never used the term signal; as a result, the students probably don't make the connection when they evaluate their ability to use transitions -- or signals.

We have not been consistent in teaching the sentence types and the sentence base grammar, particularly at the eighth, eleventh, and twelfth grades. Our failure to be consistent apparently makes students believe that they aren't proficient in syntax skills. They also consider these skills the least useful, perhaps because they have had such a proliferation of grammatical terms thrown at them.

As a department, we must be more consistent in our expectations in teaching syntax skills. We may be giving students mixed cues, causing them to be uncertain about their ability to use these skills. We claim that our students write a vareity of sentences, but they believe they "need help". We say that their papers contain well-constructed parallelism, but they say that they "need help" with this important skill. Perhaps we are not giving positive reinforcement for good sentences in the way that we do when we discuss their essay skills.

SECOND YEAR RESULTS

Preception

Except for their perceived low ability in using signals, the means for the syntax-level skills are much higher the second year, fall, than they were the first year, fall. Growth in using openers and parallelism was significant at the .01 level, but all other syntax-level skills were not statistically significant, compared with the statistically significant perceived growth in using free units, signals, and parallelism the first year. This is easy to explain because the students started with a higher perception the second year fall on all syntax-level skills (except signal) than the first year fall.

At the ninth grade, when students are introduced to the free units and parallelism for the first time, we see more growth in perceived ability to use the syntax-level skills than at any other grade (significant at .01 for free units and .001 for parallelism).

The improvement in all of the students' perceived ability to use parallelism (2.33 to 2.82) is certainly better than the first year (1.99 and 2.36). Even the twelfth graders' perceived progress from fall to spring was significant at .01 in using parallelism (3.06 to 3.48); whereas the first year's perception was much lower (2.08 fall and 2.54 spring). We expect these more positive perceptions are the result of teachers spending more time the second year in teaching this valuable skill.

For the total student body we see no significant regression (fall to spring) in perceived ability in using the syntax skills as the data shows for first year. The first year we saw regression in the eighth, ninth and tenth grades, some of which was statistically significant. We do not see the same pattern the second year. Whatever regression occurs (particularly at the eighth and twelfth grades), it is not statistically significant. We can explain the eighth grader's lack of confidence spring semester because they have not yet been taught the syntax skills of using closers and signals. However, it is more difficult to explain the seniors' regression in their ability to use all the free units and sentence variety, unless in their writing assignments they had been criticized for failure to use these skills.

Except for seniors who ranked sentence variety 5th in the spring of the second year and eighth graders who ranked it 5th in the fall of the second year, all the other students ranked the syntax-level skills as the last six of the thirteen composition skills.

Summary of improvement items: Table 1, below, shows significant improvement in test items (fall and spring) for each grade and total group.

TABLE 1
Summary of Test Results

	GRADE					
Item	Total	8th	9th	10th	11th	12th
Opener	**		**			
Interrupter			**			
Closer			**	*		
Sentence Variety						
Signal				*	*	
Parallelism	**		***	**		**

* Significant at Alpha = .05 level
** Significant at Alpha = .01 level
*** Significant at Alpha = .001 level

Definition

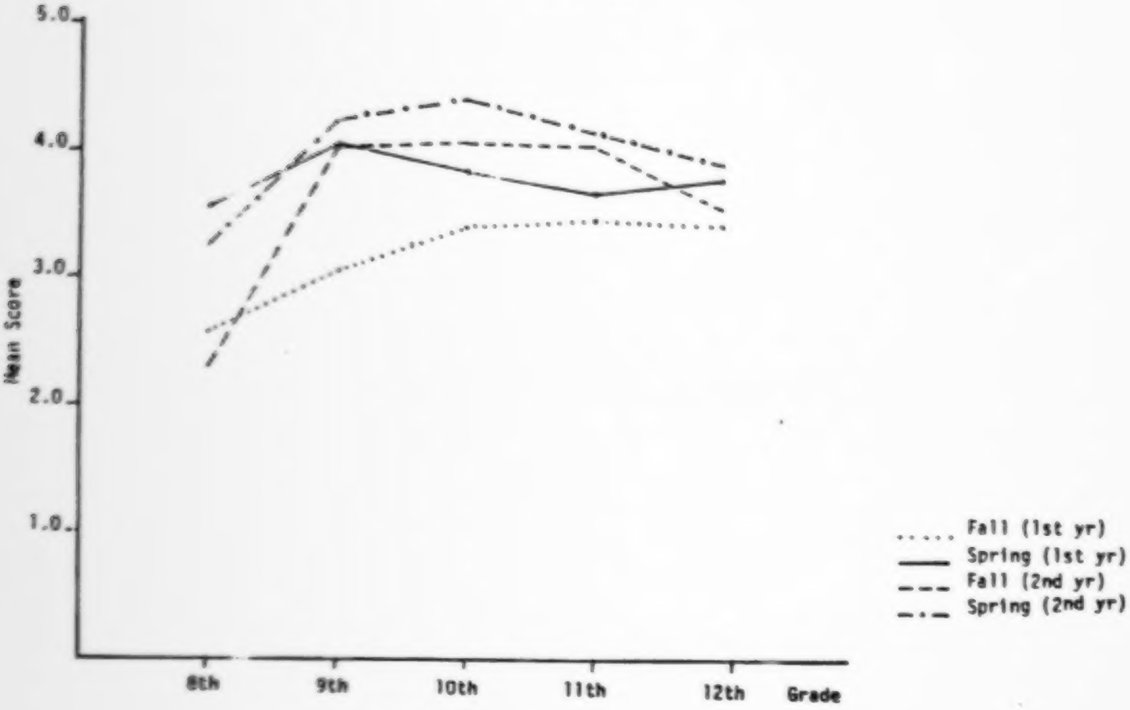
A statistically significant improvement in definitions of all the syntax-level terms occurs the second year. In every instance, the definitions provided, second year fall, surpass the definition given the first year fall.

TABLE 2
Summary of Definition Test Results

	GRADE					
Item	Total	8th	9th	10th	11th	12th
Opener				**	**	
Interrupter	***	*	*	***		
Closer	**			***		
Sentence Type						
SV	***	***		*		*
S-V-O	***	***				**
S-L-VC	***	***		*		
S-PV	***	***				
EXPLETIVE	***	***		*	*	
Signal	***			**		
Parallelism	***		***			***

* Significant at Alpha = .05 level
** Significant at Alpha = .01 level
*** Significant at Alpha = .001 level

DEFINITION TEST:
TOTAL MEAN FIRST AND SECOND YEAR
GRAPH 17



DISCUSSION

The results of the definition test have shown where the curriculum has weaknesses and where we need improvement. It is apparent that if students believe that the terms used in a curriculum are important, they will learn them. Even though we don't believe in rote learning, perhaps teachers should pay closer attention to the definitions of terms -- particularly the ones they use in a composition curriculum. They need to be sure that the students know the names for skills being taught. The improvement in the second-year definition scores shows what students are generally interested in knowing what things mean if they see that they are relevant in a curriculum.

Because students wrote significantly better definitions the second year, we will not consider the second year as a valid estimate of how well the students know the syntax-level skills; therefore, we will assume that the first year's data is really what students know and don't know. So, how important is it that our students can't define many of the terms of the syntax-level curriculum? We think their inability to define may reflect on how well they think they can perform the skills. Perhaps one reason that the students are so positive about the essay-level skills is that they know what the terms mean, so they believe that they can perform them.

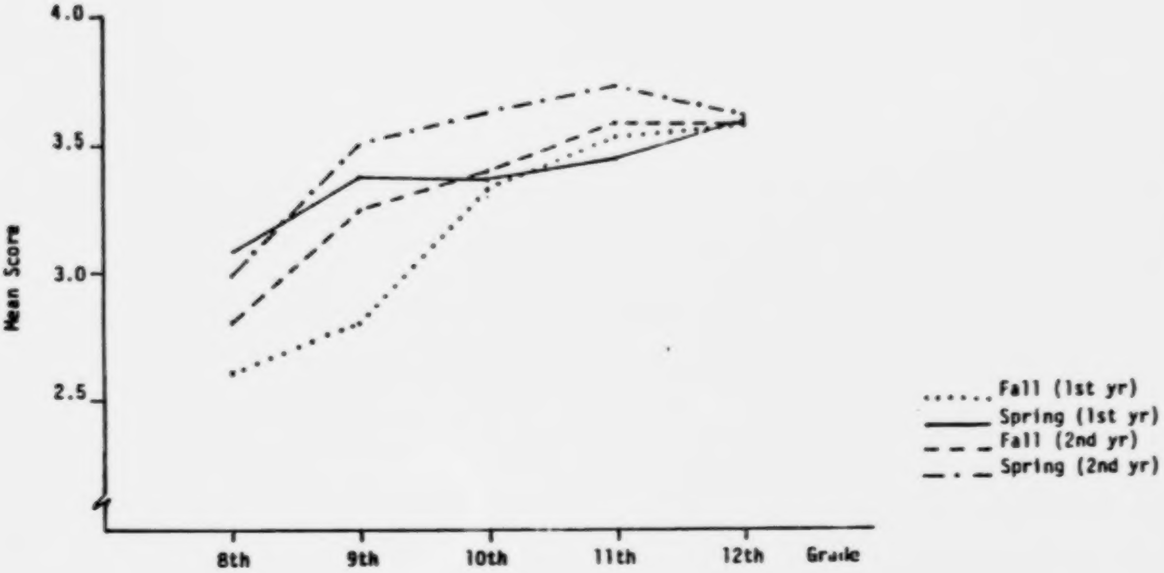
Another explanation may be that our students are more interested in the "big picture" than in what they perceive to be the little things such as sentence-structure. Sondra Perl found that unskilled college writers were very concerned about syntax- and word-level skills, so they revise as they go, spending too much time editing. Consequently, they are unable to deal with organization and content (333-334).

Further research may be necessary to answer the following questions: How important is it to know the definitions for skills? Do students perform the tasks better if they know how to define? We will deal with these questions further when we discuss the product in Chapters 5 and 6.

SELF-EVALUATION

We are generally pleased with the improvement shown from fall to spring in the students' self-evaluations. We hope that the gains made in the second year of the project will be maintained in the future. This project may show the staff how important it is to give the students consistent instruction so that they feel positive about a curriculum.

STUDENTS' SELF-EVAULATION
FIRST AND SECOND YEAR
GRAPH 18



USEFULNESS

We aren't surprised that our students find the essay-level skills the most useful ones when they write a paper. However, by mixing essay-level skills and syntax-level skills in our questionnaires, we may have set up a false dichotomy. Perhaps we should have separated the two and asked students to rank each set, so that we could get a more accurate picture of how they evaluate each set. Certainly essay-level skills go hand in hand with syntax-level skills. One cannot write without both.

END NOTES
Chapter 4

1. The definitions were evaluated on a five-point scale:

1	No answer
2	Wrong classification
3	Incorrect
4	Incomplete
5	Satisfactory

See Appendix III Tables 3 - 4 for definition scores.

WORKS CITED
Chapter 4

Christensen, Frederick. The Christensen Rhetoric Program. New York, NY: Harper, 1968.

Crews, Frederick. The Random House Handbook 2nd Edition. New York, NY: Random, 1977.

Christ, Henry L., Margaret M. Starkey, and J.C. Tressler. Heath Handbook of English. Boston, MS: 1965.

Perl, Sondra. "The Composing Process of Unskilled College Workers" Research in the Teaching of English. 13 (1979) 317-336.

PART III --STUDENT PERFORMANCE: PERCEPTION VS. REALITY

CHAPTER 5*

Essay-Level Skills: The Product

BACKGROUND AND THE QUESTION

We make every effort to help our students become independent in using pre-writing skills by the end of the tenth grade. However, it is difficult to know how successful we have been because many of our pre-writing activities in the first three grades depend upon literary topics with different degrees of intervention from the teacher. We hoped that analysis of an impromptu essay would tell us just how independent our students were in using the pre-writing skills.

We were also concerned that we might be neglecting other aspects of writing because we seldom assigned personal-experience essays. As a result, we used no brainstorming sessions to help the students search their memories for evidence, a method widely recommended in pre-writing instruction. All of our pre-writing searches have depended upon the printed word or the literary works studied. Of course, the students must independently generalize and interpret the evidence; but the evidence generally comes from the text. Consequently, we wanted to know if our students could transfer training in using evidence with literary works to personal-experience topics.

---

*See Appenxix III, Tables 7 to 12 for supporting material for this Chapter.

Even though we believed that imitation of organizational patterns improved student writing, we had no quantitative data to show that students could adapt models for writing on personal-experience topics. We had no evidence that a transfer occurred when students wrote independently on a topic that wasn't monitored by the teacher.

We also needed data to test the sequence of our composition program. Did the sequence meet the needs of our students at the appropriate time in their development? Were we expecting students to do sophisticated essay-level skills too early? Or too late? Over the years we had made adjustments in our composition curriculum, taking into account recent composition research, the increased sophistication of our students, and the improved training of our teachers. As better-trained composition teachers joined the staff, and as our students changed, we began to move more sophisticated skills to the lower grades. The illustration mode received increasing emphasis because we found that it was a pattern the younger students could learn. We also believed that our students could become better writers if they had the pre-writing skills to develop generalizations and search for examples. For instance, in the 60's, we didn't introduce thesis or any particular organizational pattern to eighth graders. Later, we realized that, with help, students at that grade level could so some rather sophisticated essay-level skills. We also concluded that some of our students became competent in those skills by the end of the ninth or tenth grades. We hoped that the essay analysis would verify what we thought -- that the sequence of our composition curriculum was realistic.

As a result of the discussions of these issues we decided that we could talk at great length about what we do, the processes we use, the reinforcement we provide, but the proof had to be in the product. How well did our students actually perform when writing a paper? The product -- an impromptu paper written in a fifty-minute period with no intervention from the teacher -- would help to answer our question:

> How do students with the same general ability progress in using the routine procedures of pre-writing and writing in an impromptu personal essay using the ILLUSTRATION mode?

We administered four in-class, impromptu essays, one early in the fall semester and one late in the spring semester of the 1982-83 and 1983-84 school years. The essays were evaluated, using a dichotomous analytic scale. (A detailed discussion of our evaluation scale will be described at length later in this chapter.)

COLLECTING THE DATA

Since we had a broad age range in our sample (eleven to eighteen years old, with a mean age of fifteen), we needed a personal-experience topic that would appeal to students in this age bracket. In addition, all of the students needed to have had some experience relevant to the topic so that they could support it with specific examples. Furthermore, the topic had to be adaptable to the illustration mode because it was the only organizational pattern that all of the students (grades 8 - 12) had been introduced to by the end of the eighth grade.

In the fall of 1982, we asked students to discuss a significant, important, or interesting event or experience that had happened to them during the past school year. In the spring, 1983, we asked them to identify and discuss a favorite television, fiction, or movie character (see Appendix IV, Exhibits 3-6 for both years' assignments). The students were informed the day before the test that they would be required to write an essay the following day, but they were not given the topic until the class period when they came to write. Since all classes were back-to-back, there was little opportunity for one class to inform the next about the nature of the topic. The classroom teachers administered the essay, providing theme booklets and pens. They gave no advice or information except the following:

1. Teachers would give class credit for the essay.
2. The purpose of the essay was to help the teacher diagnose the class's writing problems and to help with some research.
3. Students could make outlines, if they wished.
4. The papers would be read first by the classroom teacher.
5. Names would be deleted from the papers, coded by number, and evaluated by an outsider, not the teacher.

After the classroom teacher gave the papers a general rating (5 for excellent, 4 for good, 3 for average, 2 for weak, and 1 for failing), the papers were divided into three random sets. Each evaluator read one set.[1] The realiability quotient was high (.91457) for the evaluation, fall 1982 (see Appendix III, Table 8).

EVALUATING THE DATA

We developed a dichotomous analytic scale because we wanted a measurement of specific objectives, particularly those related to the illustration mode, one that depends upon examples supporting generalizations for its success. We chose an analytic evaluation form over other holistic or primary-trait evaluation methods because we were not interested in rank-ordering our students' writing. Since the impromptu essay was "situation-bound" a term Richard Lloyd-Jones uses in his essay on Primary Trait Scoring (42), we needed a form that would be tied to a particular discourse mode. (Since we planned to evaluate syntax separately, we did not include sentence-structure or mechanics in our evaluation form.)

The first step in developing our evaluation form was to list all criteria of an essay using the illustration mode. Next we classified those criteria -- or objectives -- into five categories: Structure, Thesis, Evidence, Introduction, and Conclusion. Under each of these categories, we listed the objectives, using a dichotomous scale: yes, no, and didn't apply. Each yes received 5 points; each no, 1 point; and each didn't apply, 0 points. If a paper met all the objectives under each of the five categories, it could earn 125 points, divided in the following way:

Structure	--	15 points[a]
Thesis	--	30 points
Evidence	--	30 points
Introduction	--	25 points
Conclusion	--	25 points

Structure

Items 1 - 3 under Structure apply only to those papers using the illustration mode (see Exhibit 1 below). Items 4 and 5 were included to allow credit for the papers following another organizational pattern. The maximum score that a student could earn under Structure, using a pattern other than illustration, was thirteen out of a possible fifteen. Papers following a chronological narrative organization would not get credit for Item 4 because we were trying to get students to break out of that structure.

Under Structure, we wanted to evaluate how well a student could take a subject and divide it into manageable pieces. An example of such competent use of division is a tenth grader's thesis (fall, 1982):

> My grandmother's visit was interesting because she was eccentric, changed my ideas about her, and showed me how my mother got along with her.

This thesis earned fifteen points -- the maximum -- because the writer divided her subject (and her thesis) into topics, earning five points each for Items 1 and 3. She used the topics as paragraph leads, so she earned five points for Item 2 also.

EXHIBIT 1
STRUCTURE

1. The subject to be discussed is clearly divided into topics. 5 -- 1 -- 0
2. The topics to be covered are clearly stated in each paragraph. 5 -- 1 -- 0
3. The thesis is clearly divided into topics. 5 -- 1 -- 0
4. Even though the subject is not divided into topics, the organizational structure is clear (for example, time, graded order, enumeration, but *not* chronological narrative). 5 -- 1 -- 0
5. If the thesis implies a rhetorical organization, the essay follows that organization (comparison/contrast definition, process, cause-effect, classification). 5 -- 1 -- 0

SUB-TOTAL ____________

Thesis

A student could earn thirty points for *thesis*, no matter what organizational pattern was used, provided the *thesis* was *stated*. If the *thesis* was *implied* (item #7), the writer would get twenty-seven points rather than thirty.

EXHIBIT 2
THESIS

6. The writer states a specific thesis that addresses the question (without using vague words like *interesting*, *exciting*, *fun*, or *great*). 5 -- 1 -- 0

7. The writer's thesis is implied by the topics. 3 -- 0

8. The paper has one unified thesis. 5 -- 1 -- 0

9. The thesis is authoritative: the student is qualified to write on the thesis from first-hand knowledge. 5 -- 1 -- 0

10. The thesis is narrowed so that the student can adequately prove it in 500 words. 5 -- 1 -- 0

11. The writer keeps the reader informed of his thesis through the use of key words and other transitional devices. 5 -- 1 -- 0

12. The writer's thesis shows originality. 5 -- 1 -- 0

SUB-TOTAL ____________

The student who wrote about her grandmother earned thirty points for *thesis*. Even though she uses the term *interesting*, her use of *interesting* in her *thesis* is supported by her three topics. (By incorporating the parenthetical material in item 6, we hoped to avoid giving credit to a *thesis* full of abstractions such as *My trip was interesting, exciting, and stimulating*. In this case, the writer uses specifics to support the use of abstract terms.

Evidence

If a paper didn't follow the illustration mode, but the evidence fulfilled the objectives, the paper could earn between twenty-three and twenty-seven points in this category. A writer who fulfilled all of the objectives, using the illustration mode, could earn thirty points. Even papers following no particular organizational pattern, without a thesis, could earn five points for Item 19 if each paragraph was adequately supported by examples.

EXHIBIT 3
EVIDENCE

13. The topics clearly support the thesis.	5 -- 1 -- 0
14. If the writer doesn't use topics the evidence is relevant to the organization used.	5 -- 1 -- 0
15. The writer uses relevant, suitable evidence to support the topics	5 -- 1 -- 0
16. The evidence supporting the thesis is specific.	5 -- 1 -- 0
17. New evidence to support the thesis is used for each topic or point (no repetition).	5 -- 1 -- 0
18. The evidence clearly supports the thesis (shows relationship.	5 -- 1 -- 0
19. Each paragraph is adequately supported by examples	5 -- 1 -- 0
SUB-TOTAL	

The student who wrote about her grandmother earned eighteen points: five points each for Items 13, 15, and 17, and one point each for Items 16, 18, and 19. Her evidence wasn't specific; it didn't always support her thesis; and her paragraphs weren't adequately supported by examples (see Appendix I, Exhibit 1).

Introduction and Conclusion

By evaluating these categories, we could judge how well the students kept an audience in mind. Students could earn 50 points by writing good introductions (25) and conclusions (25).

EXHIBIT 4
INTRODUCTION

20. The paper has an introduction.	5 -- 1 -- 0
21. Early in the paper, the writer clearly introduces the thesis to be discussed.	5 -- 1 -- 0
22. The introduction is provocative and entices the reader's interest	5 -- 1 -- 0
23. The introduction is clearly set apart by paragraphing.	5 -- 1 -- 0
24. The introduction is appropriate for the audience and subject.	5 -- 1 -- 0
SUB-TOTAL	------------

EXHIBIT 4 (continued)
CONCLUSION

25. The paper has a conclusion. 5 -- 1 -- 0

26. The conclusion is clearly set apart by paragraphing. 5 -- 1 -- 0

27. The conclusion sums up the evidence used to support the thesis. 5 -- 1 -- 0

28. The conclusion sticks to the subject. (It doesn't introduce new information.) 5 -- 1 -- 0

29. The conclusion sums up without being repetitive. 5 -- 1 -- 0

SUB-TOTAL ____________

The girl who wrote about her grandmother's eccentricities fulfilled all the requirements for a good introduction and conclusion, earning a total of 50 points.

Introduction

This summer, my grandmother came to visit, and we all went for a weekend to Chicago (my mother, my grandmother, my stepfather, and I). I hadn't seen her in two years, so my memories of her had been slightly blurred and changed. I had no idea what to expect, and I got something of a shock. My grandmother's visit was interesting because she was eccentric, changed by ideas about her, and showed me how my mother got along with her.

Thesis

Conclusion	Dealing with my eccentric grandmother wasn't too easy, but it was worth it.
Thesis Related	Now I see what she's really like, how my mother deals with her, and how I can deal with her. When I went along with her oddities, she was at least tolerable. I've decided that I certainly don't want to become like her, but that I can stand her that way, after all.

This student earned a total of 113 points out of a possible 125 for her paper, fall 1982, so we see how the evaluation form works on a typical paper.

Strategies

In a separate section of the analytic evaluation form, we identified the kind of organizational method used, both at the paragraph- and essay-level. These scores were coded separately.

EXHIBIT 5
STRATEGIES

Mark the following with this code:

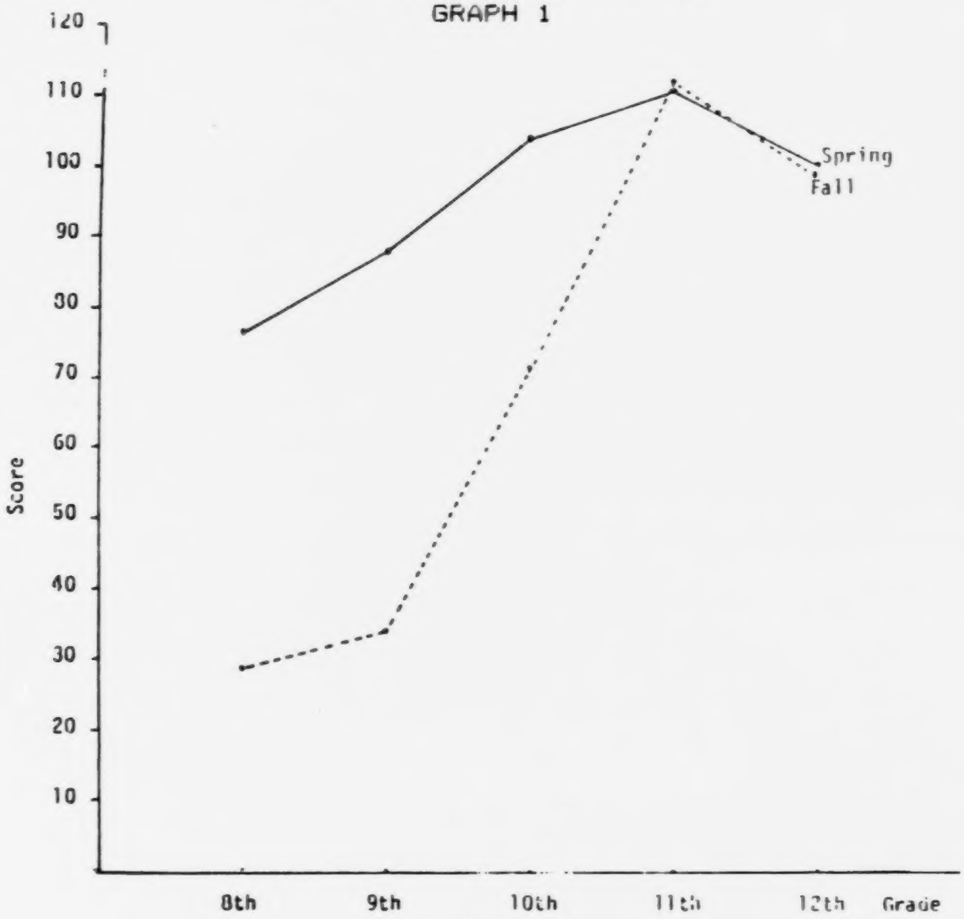
1 = one paragraph
2 = two or more paragraphs
3 = whole theme

30. Comparison/Contrast	1 -- 2 -- 3
31. Definition	1 -- 2 -- 3
32. Classification	1 -- 2 -- 3
33. Cause-effect	1 -- 2 -- 3
34. Narration	1 -- 2 -- 3
35. Description	1 -- 2 -- 3
36. Illustration	1 -- 2 -- 3
37. Process	1 -- 2 -- 3
38. Argument	1 -- 2 -- 3

RATE OF GROWTH USING ROUTINE PROCEDURE: ILLUSTRATION MODE

We conclude that our students improve at a regular rate in using routine procedures, particularly from grades eight to eleven. For most of the objectives covered in the evaluation form, the peak in competence occurs in the fall term of the eleventh grade with a mean score of 113.58 (out of a possible total of 125). After that, a leveling off occurs in the spring term of the eleventh grade and in both terms of the twelfth grade.

MEAN ANALYTIC SCORES FOR EACH GRADE:
FALL AND SPRING, 1982-83
GRAPH 1



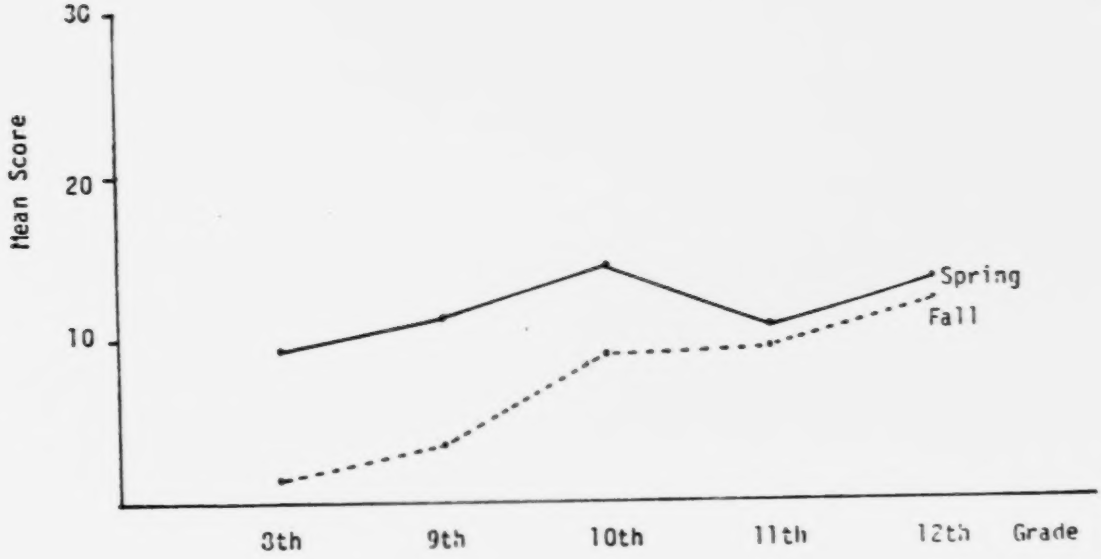
Between grades eight and ten, the years where we give the most emphasis to the illustration mode, our students are the most successful in meeting the objectives. After we introduce older students to other organizational strategies, we see their skills stablizing without much change. As the students get older, they practice a variety of organizational patterns, so they have more options to choose from. As Leo Ruth and Sandra Murphy suggest, after students learn more sophisticated patterns, they "set a more complicated rhetorical task for themselves than they have previously attempted -- before they have full control" (419). It is also possible that older students found the illustration mode trivial, particularly after learning forms such as comparison and contrast, definition, or argument.

In the following discussion, we will look at competence in using the skills classified under Structure, Thesis, Evidence, Introduction, and Conclusion.

Structure

We see an upward trend in the growth of students in grades eight to ten, using the skills in the category of structure, peaking in competence in the spring semester, tenth grade. After that, we see a drop at the eleventh grade, with a slight upward trend at the twelfth grade.

STRUCTURE:
MEAN SCORES FOR EACH GRADE:
GRAPH 2

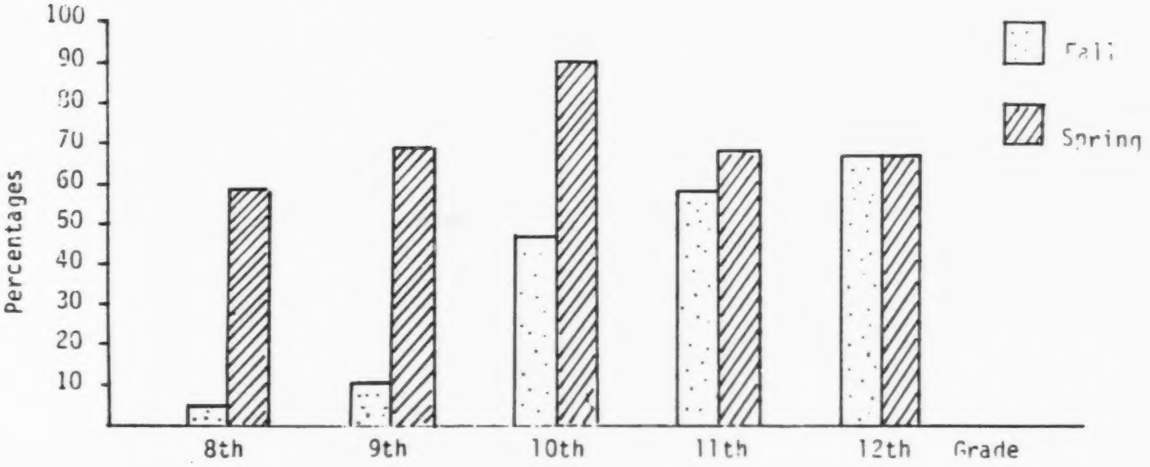


In order to meet the objectives under structue, students needed to proceed through three or four steps, using inductive and deductive thinking skills. First, they had to do a memory search -- looking for past experiences. After identifying their experiences, facts, or prior knowledge, they had to generalize a point. This generalization could be very broad at first. For instance, the student writing about her grandmother first generalized: We visited grandmother in Chicago. It wasn't a happy time. I learned something about my mother. She knows from previous instruction, that these broad generalizations are not specific enough; therefore, she has to refine her more abstract generalization to a specific one -- and, by searching her memory, identify just what it was that she learned. In that process, she has divided her experiences into three parts, divisions that are part of her thesis, thereby becoming paragraph leads or topic sentences.

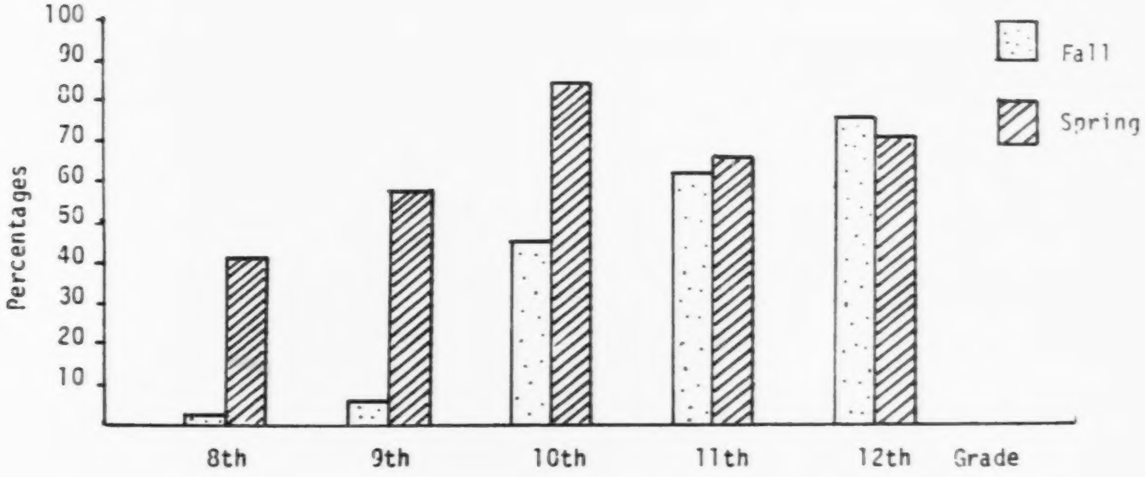
Structure: Subject divided into topics; stated at paragraph and thesis level (items 1-3)

Competence in these pre-writing skills peaks in the spring semester, tenth grade, with 90% of that group competent in dividing a subject into topics. Over eighty-percent of that same group achieved competence in developing a thesis divided into topics and making use of those same topics at the paragraph-level.

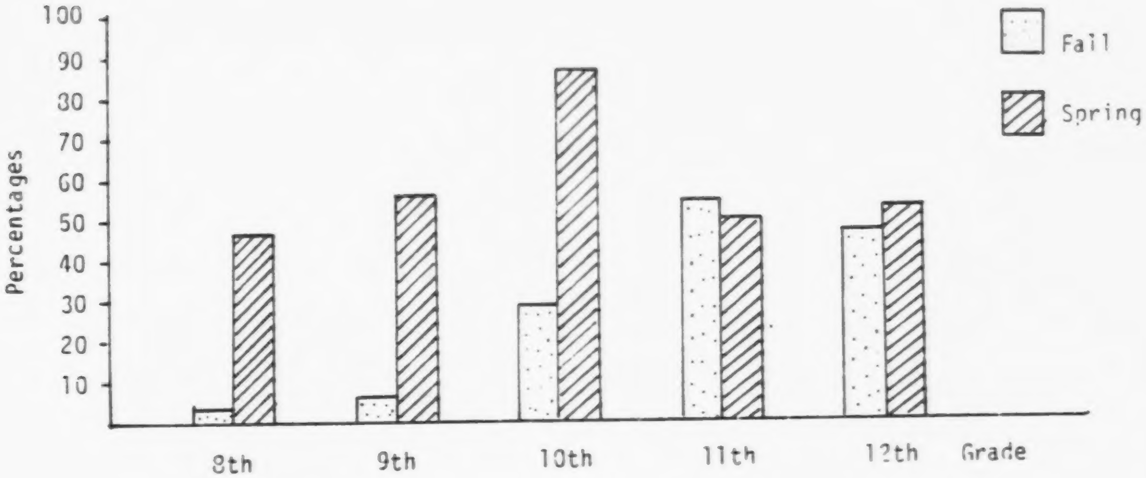
STRUCTURE:
SUBJECT DIVIDED IN TOPICS, 1982-83
GRAPH 3



STRUCTURE:
TOPIC STATED AT PARAGRAPH-LEVEL, 1982-83
GRAPH 4



STRUCTURE:
THESIS DIVIDED INTO TOPICS, 1982-83
GRAPH 5



Once a student has met objectives one, two, and three, he or she is well on the way toward writing an essay following the illustration mode:

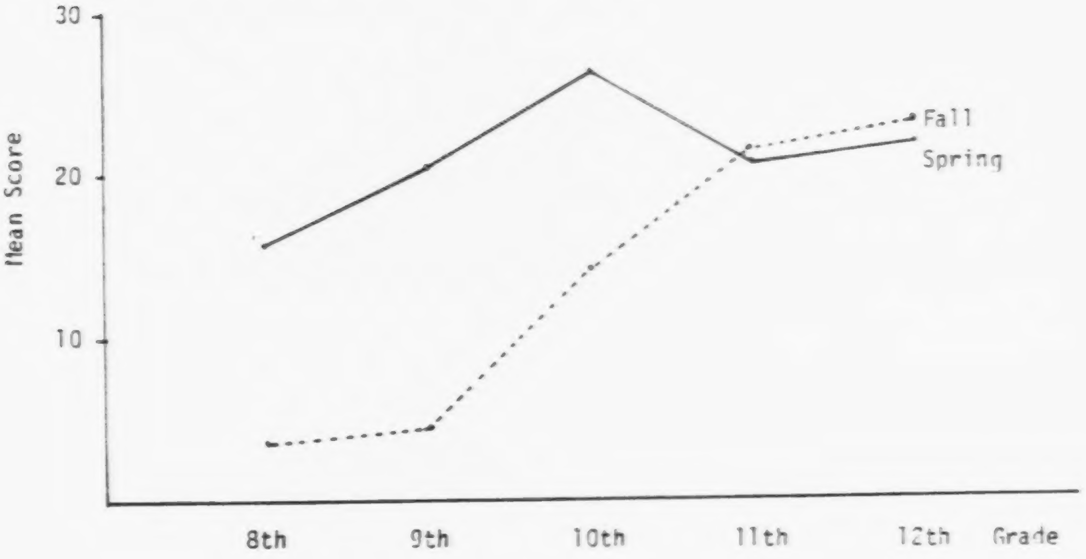
Generalization #1:	The trip to Chicago showed me that my grandmother was eccentric.... (example 1, example 2, etc.)
Generalization #2	The trip to Chicago changed my ideas about my grandmother... (example 1, example 2, etc.)
Generalization #3:	The trip to Chicago showed how my mother gets along with my grandmother... (example 1, example 2, etc.)

The students had to do these steps automatically and expeditiously in order to complete the essay in the short time allowed. Apparently, a large percentage of the sample transferred the writing process practiced with literary topics to personal-experience essays.

Thesis

The tenth graders peak in competence in this category.

THESIS:
MEAN SCORES FOR EACH GRADE: 1982-83
GRAPH 6

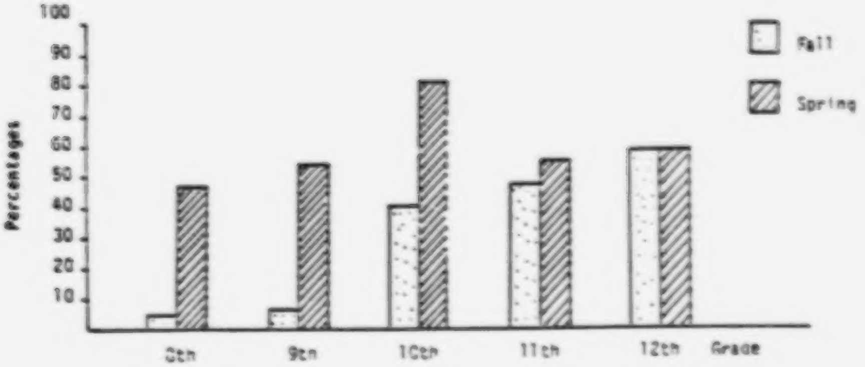


Thesis: Specific, Unified, and Narrowed (items 6, 7, 8, and 10)

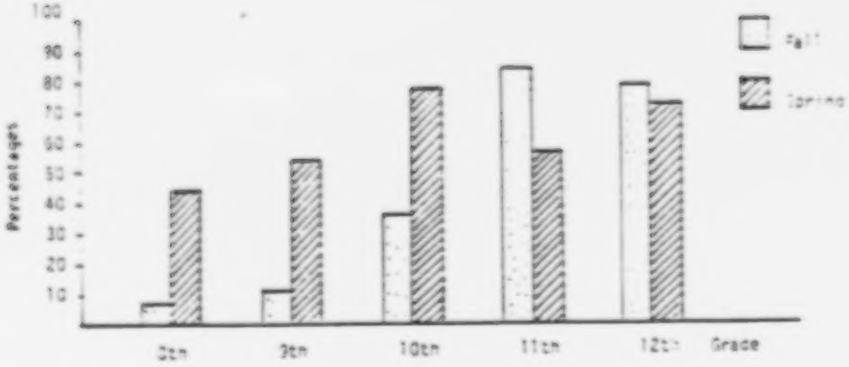
In our composition program, we require younger students to state the thesis early in their essays. Upperclassmen are not held to that objective because, by studying professional models, they learn that the thesis does not have to appear word for word in an essay. They also learn that in order to fit a thesis into the flow of a paper, they may have to reword or even imply the point they plan to make. As a result, more seniors used an implied thesis than students in the lower grades. We see that almost 90% of the seniors wrote from a thesis -- either stated or implied.

Because more upperclassmen than younger students wrote from an implied thesis, it was sometimes difficult to evaluate their theses, using our criteria. However, it is apparent that the older students usually used a more general thesis than did the tenth graders who usually followed a thesis with three topics, implicitly stated.

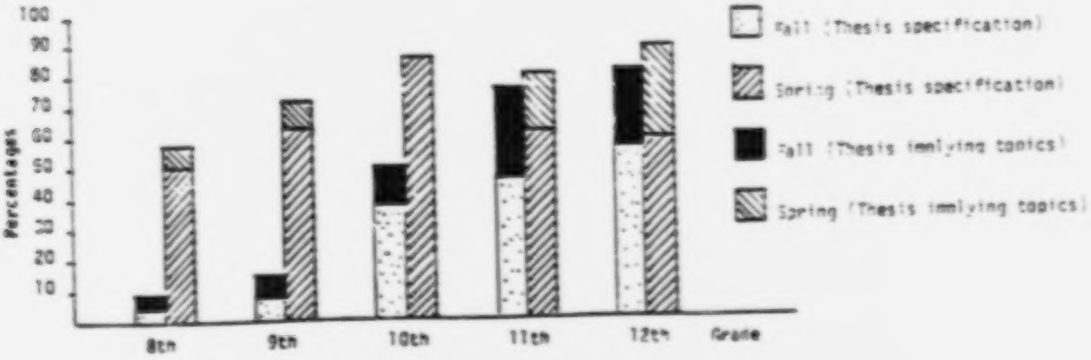
THESIS:
UNIFIED, 1982-83
GRAPH 7



THESIS:
NARROWED, 1982-83
GRAPH 8



THESIS:
SPECIFIC AND STATED/SPECIFIC AND IMPLIED, 1982-83
GRAPH 9

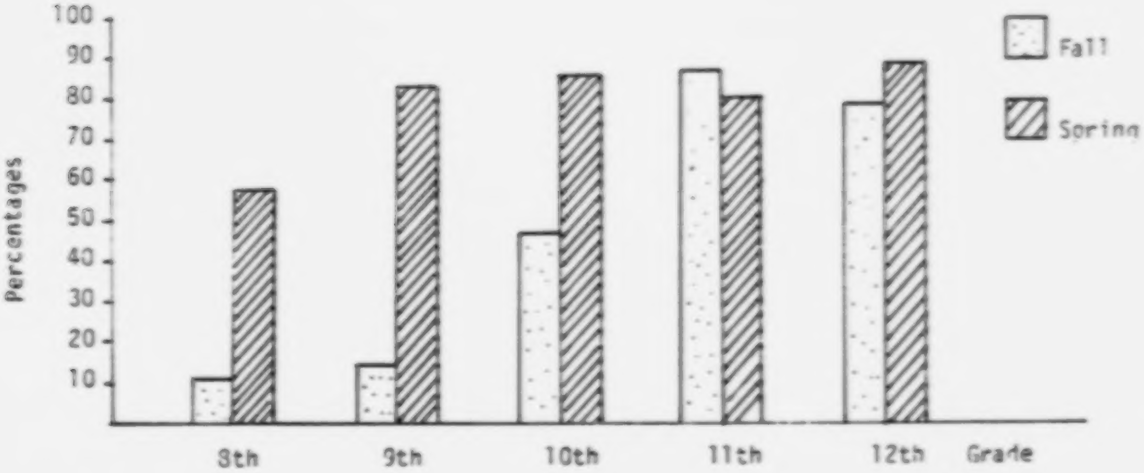


Thesis: Authoritative and Original (items 9 and 12)

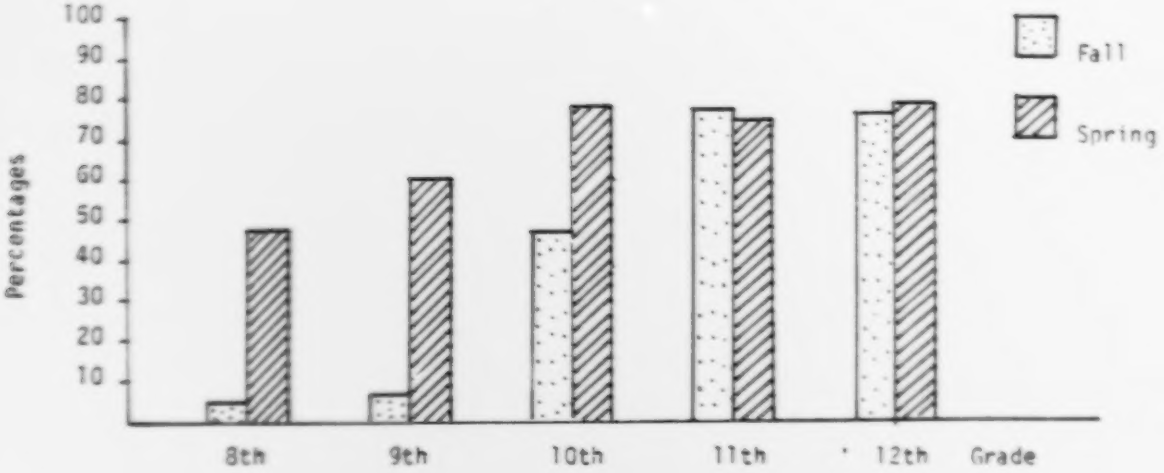
It isn't difficult to explain why the older students' theses were more original and authoritative than the younger ones -- they simply had more experience. Since the students wrote from first-hand experience, we would expect to find reasonably high scores for authoritative thesis. Occasionally, one of the students would choose an abstract thesis about war, without having any experience to support it, but most students conscientiously followed the assigned topic.

Originality is not easy to evaluate, but students in grades 10-12 met the objective better than the younger ones, something we would expect to find.

THESIS:
AUTHORITATIVE, 1982-83
GRAPH 10



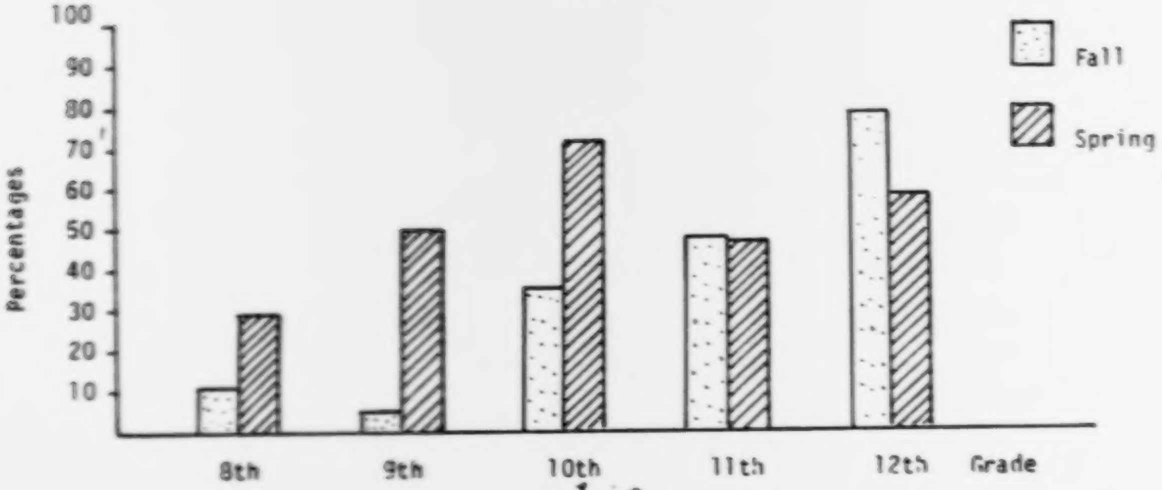
THESIS:
ORIGINAL, 1982-83
GRAPH 11



Thesis Maintenance (item 11)

Keeping a reader informed of a point through the use of key words and other transitional devices can be a revision-stage skill, not a pre-writing skill. Since students had little time to revise, it isn't surprising that fewer of them met objective eleven than some of the other objectives.

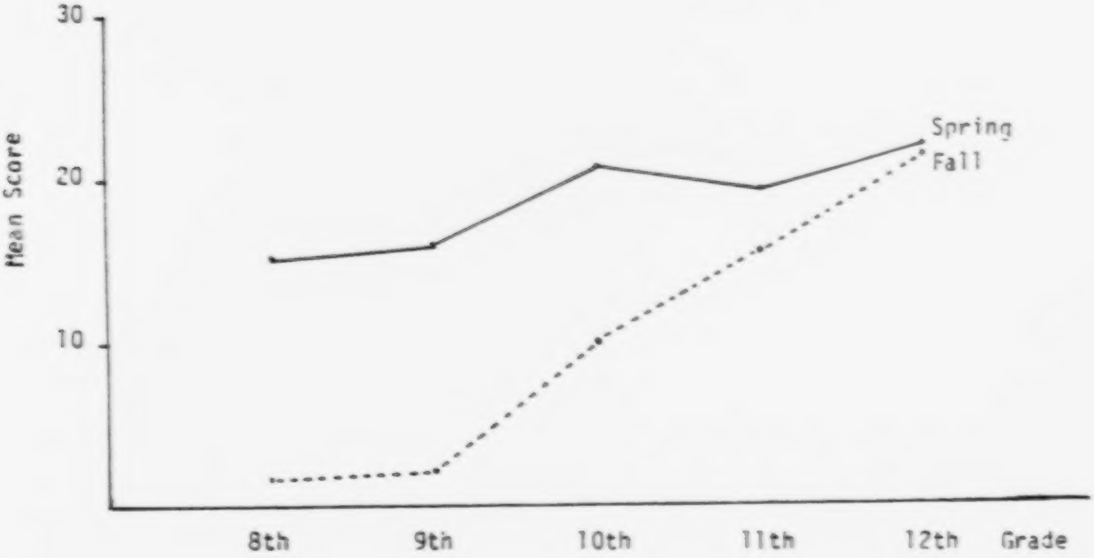
THESIS:
MAINTAINED THROUGH USE OF TRANSITIONS AND KEY WORDS, 1982-83
GRAPH 12



Evidence

Perhaps, as a result of the seniors' work in researching a debate topic, their over-all mean scores for using evidence is higher than those of other grades, even in the fall.

EVIDENCE:
MEAN SCORES, 1982-83
GRAPH 13

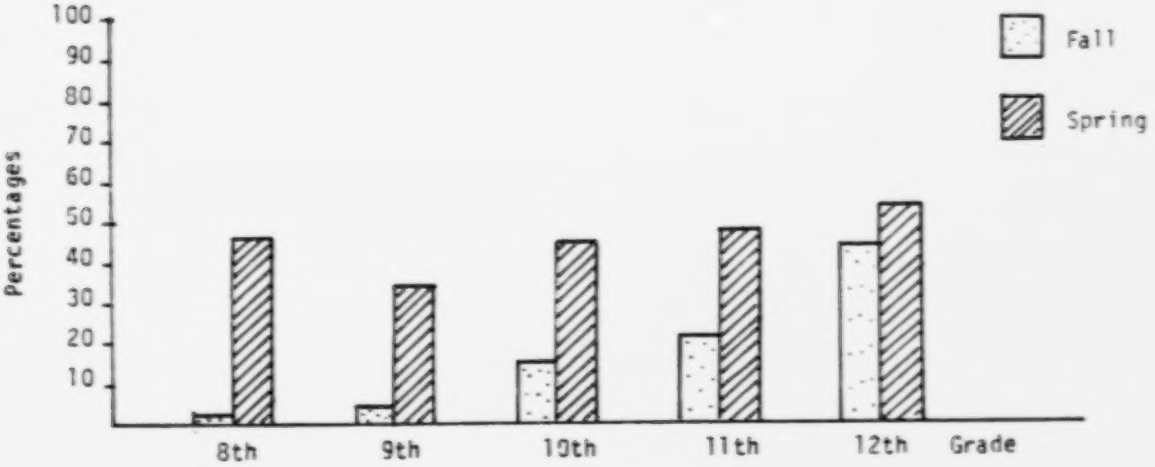


Evidence at the paragraph-level in support of the thesis (items 13 and 19)

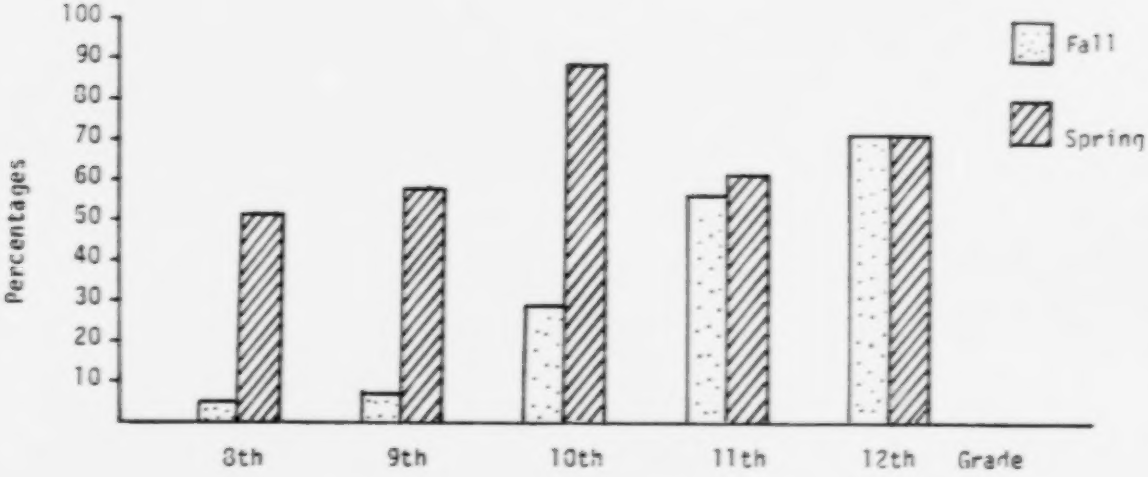
Inexperienced writers will sometimes change their topic ideas when they start to write. Even though they may have topics implicitly stated in the thesis, when they begin to write they may shift topics and develop completely different paragraph leads or topic sentences. Item 13 evaluated whether students were consistent in using their thesis topics. Seniors -- both spring and fall -- didn't do as well as tenth graders (spring) in meeting this objective, perhaps because they didn't use theses with topics.

Since the paper was impromptu, providing very little time for revision, the students may not have had enough time to think of adequate support for each paragraph. Fewer than half of the tenth and eleventh graders showed competence in this skill, and only 53.8% of the seniors fulfilled this objective in the spring papers.

EVIDENCE:
PARAGRAPHS SUPPORTED BY EXAMPLES, 1982-83
GRAPH 14



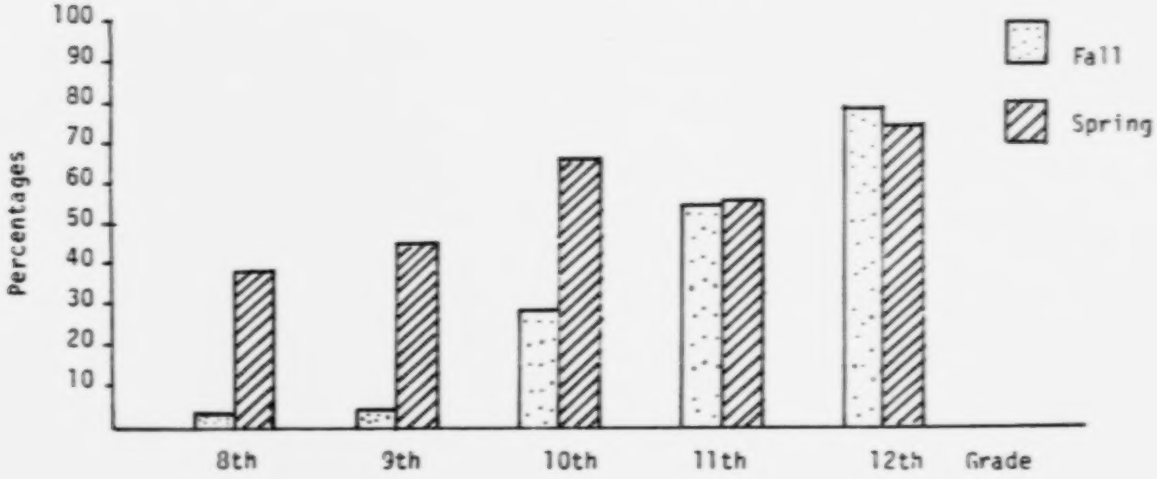
EVIDENCE:
TOPICS SUPPORT THESIS, 1982-83
GRAPH 15



Evidence related to thesis (item 18)

To meet this objective, students needed to use transitions and creative repetition to keep their readers on track -- showing how their evidence was related to the thesis. Seniors, both semesters, handled this skill better than the younger students.

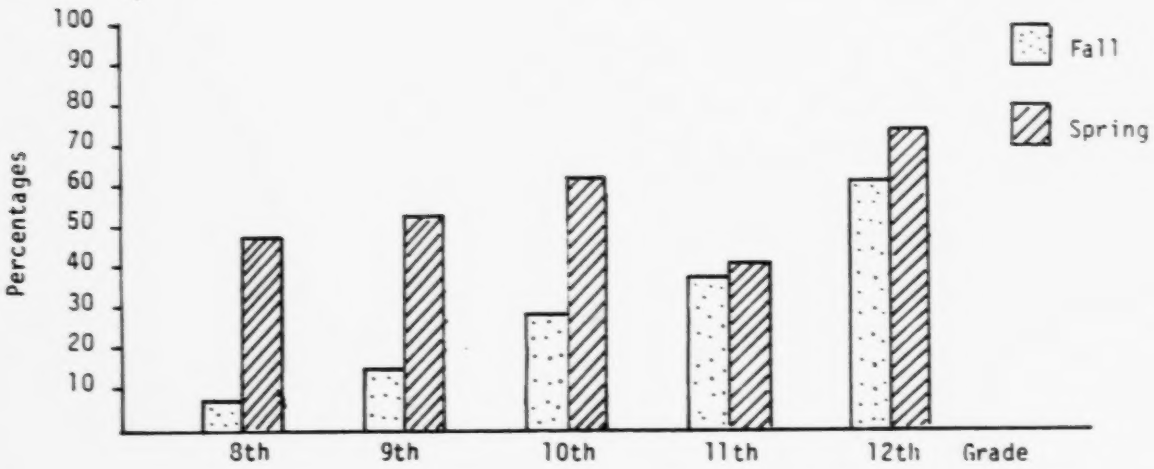
EVIDENCE:
RELATED TO AND SUPPORTS THESIS, 1982-83
GRAPH 16



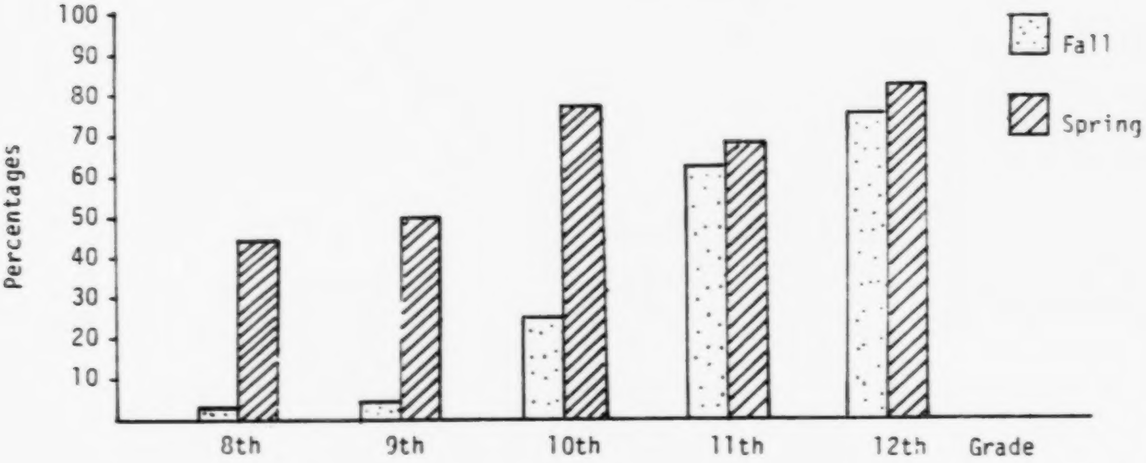
Effectiveness of evidence: Relevant, Non-repetitive, and Specific (items 14, 15, 16, and 17)

The students seem to be successful in using relevant evidence, with no repetition. However, not more than two-thirds of the students, by the time they are seniors, use evidence that is evaluated as specific. Since the paper was impromptu, the students didn't have time to search their memories for examples that were as specific as we required. Therefore, the support was sometimes too general. For instance, the girl writing about her grandmother reports that her mother "became sullen and angry", her only proof for one of her topics and insufficient to meet the criterion of specificity.

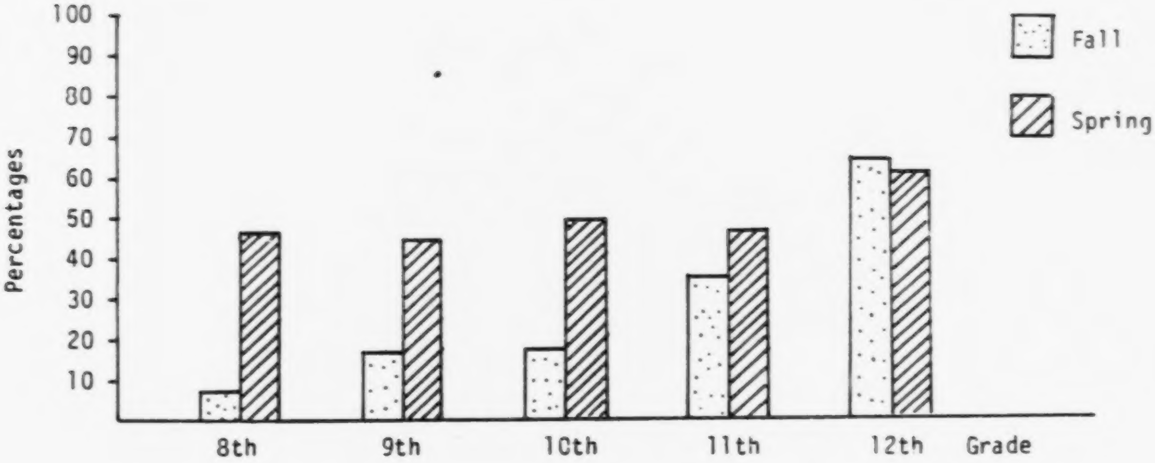
EVIDENCE:
RELEVANT, SUITABLE SUPPORT OF TOPICS, 1982-83
GRAPH 17



EVIDENCE: NEW EVIDENCE TO SUPPORT THESIS (NO REPETITION), 1982-83
GRAPH 18



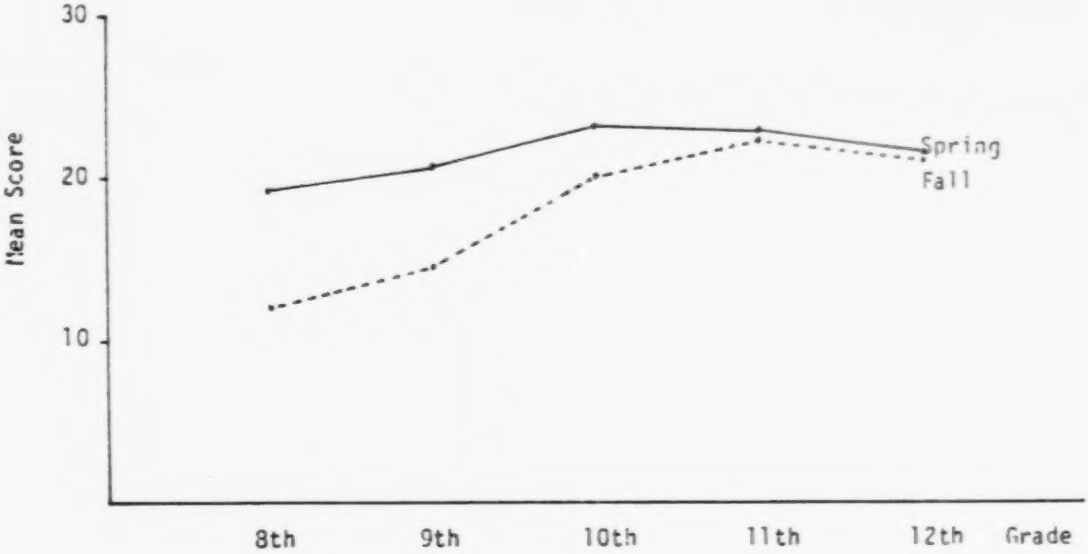
EVIDENCE: SPECIFIC, 1982-83
GRAPH 19



Introduction

The objectives for introductions were not very demanding; consequently, eighth graders start with higher scores in the fall than in the other evaluation categories.

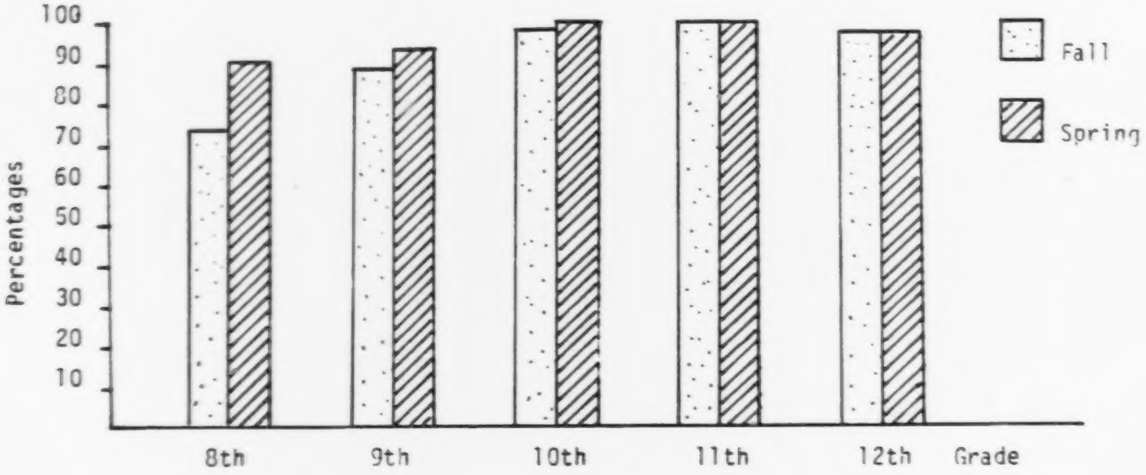
INTRODUCTION:
MEAN SCORES OF EACH GRADE, 1982-83
GRAPH 20



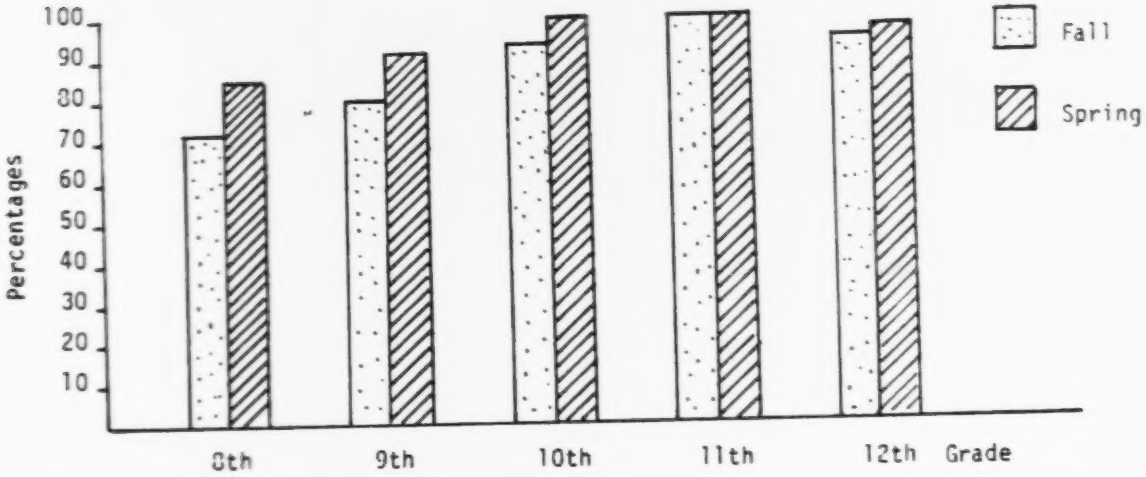
Paper contains introduction
set off by paragraph (items 20 and 23)

Competency is high in these two objectives, with all the 10th graders (fall) and 11th graders (fall and spring) evaluated.

INTRODUCTION:
PAPER CONTAINS AN INTRODUCTION, 1982-83
GRAPH 21



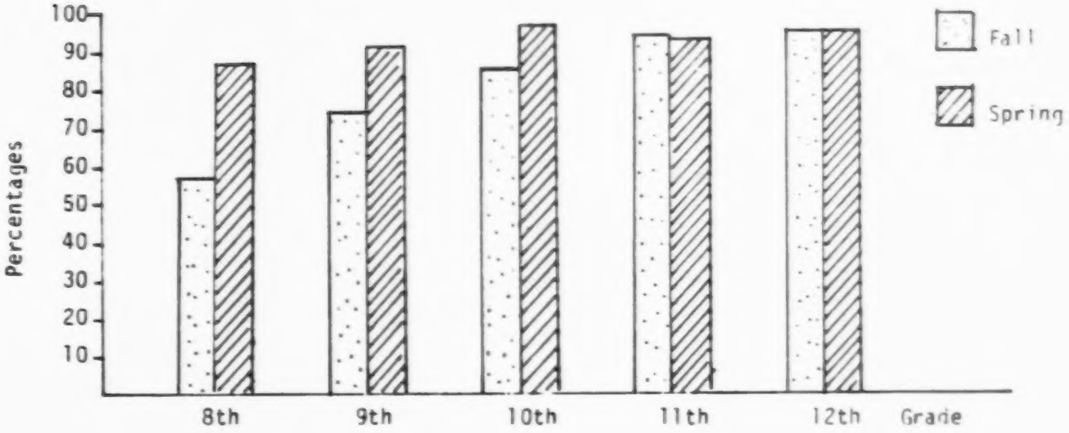
INTRODUCTION:
SET OFF BY PARAGRAPHS, 1982-83
GRAPH 22



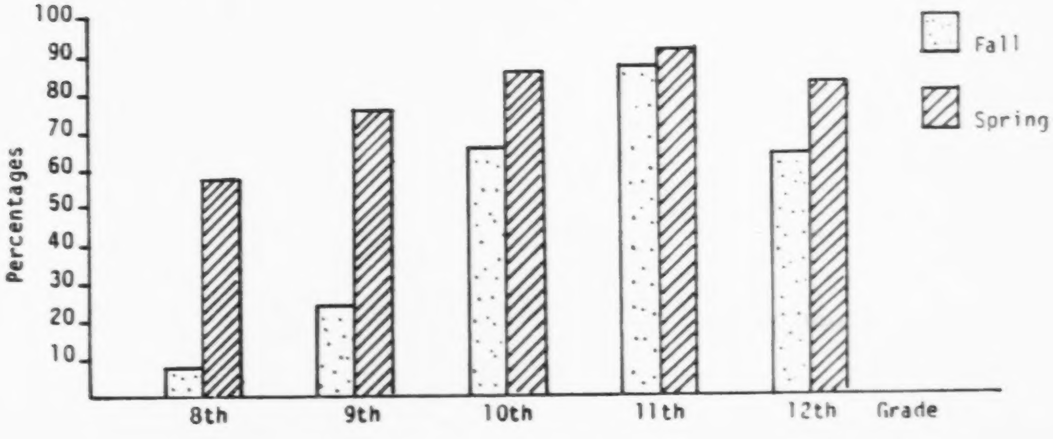
Appropriate and provocative introduction (items 22 and 24)

More students were competent in writing appropriate introductions than in writing provocative ones -- probably because the latter is harder to do. An introduction can be appropriate but dull.

INTRODUCTION:
APPROPRIATE, 1982-83
GRAPH 23



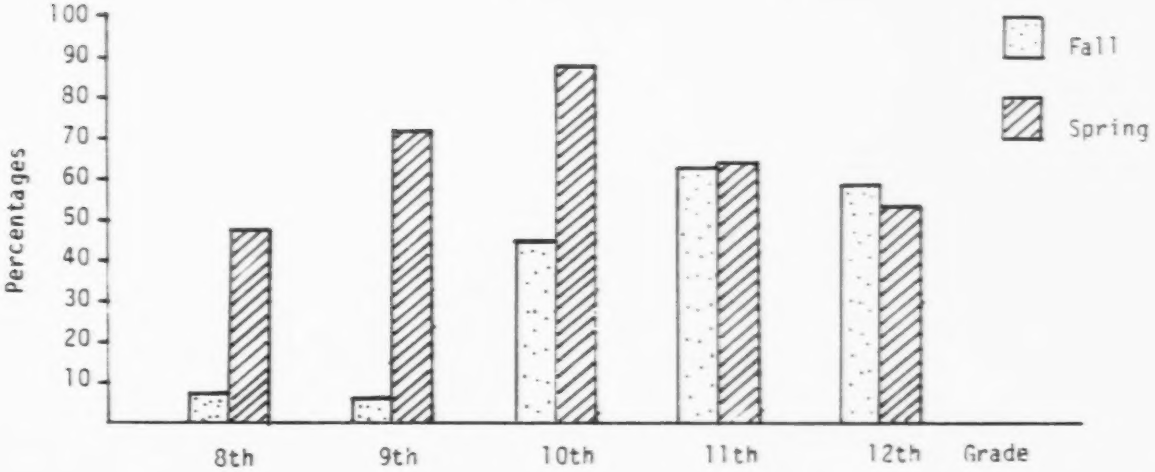
INTRODUCTION:
PROVOCATIVE, 1982-83
GRAPH 24



Thesis introduced early (item 21)

This skill gets the highest points where it is emphasized the most -- at the tenth grade level. Only a little over half of the seniors introduced the thesis early, perhaps because they had learned that the thesis can be implied.

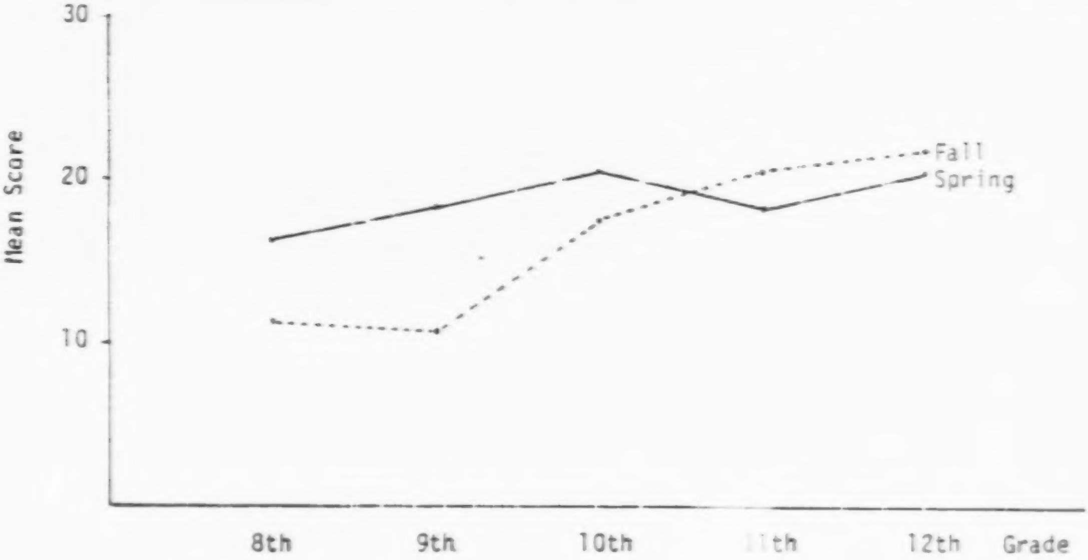
INTRODUCTION:
THESIS INTRODUCED EARLY, 1982-83
GRAPH 25



Conclusion

In this category, both juniors' and seniors' spring scores were lower than their fall scores. This drop is partially explained in Chapter 3.

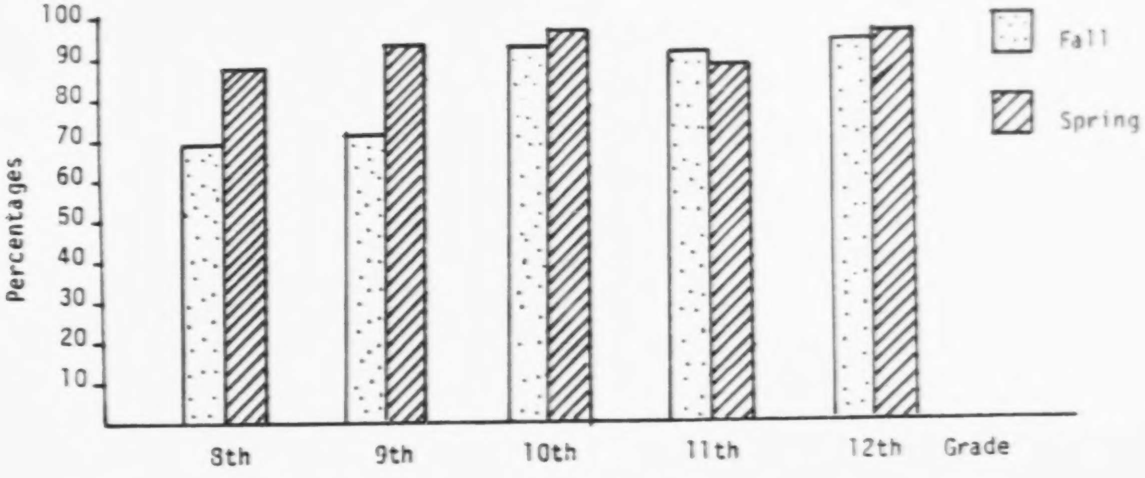
CONCLUSION:
MEAN SCORES OF EACH GRADE, 1982-83
GRAPH 26



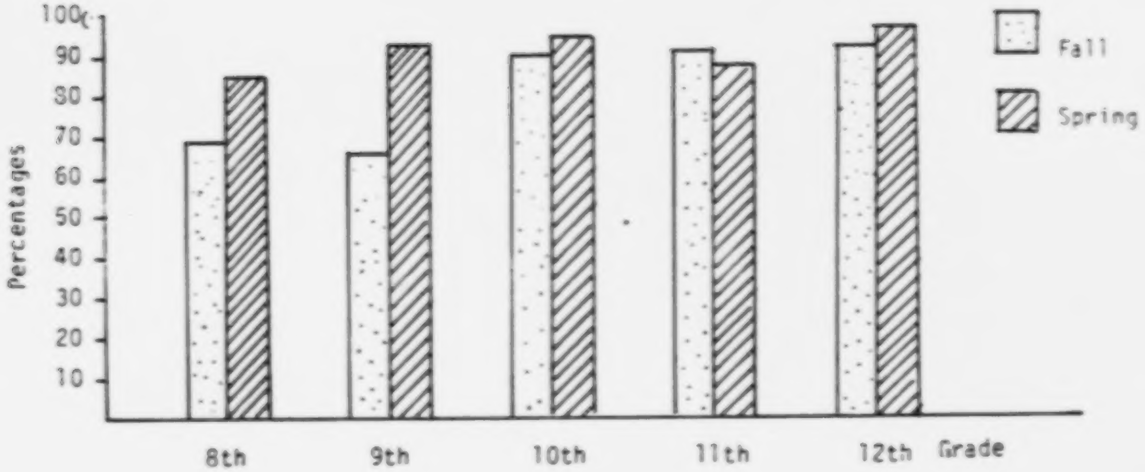
Conclusion paragraphed by indentation (items 25 and 26)

These objectives are not very difficult, so it isn't surprising that so many seniors displayed competence.

CONCLUSION:
PAPER HAS A CONCLUSION, 1982-83
GRAPH 27



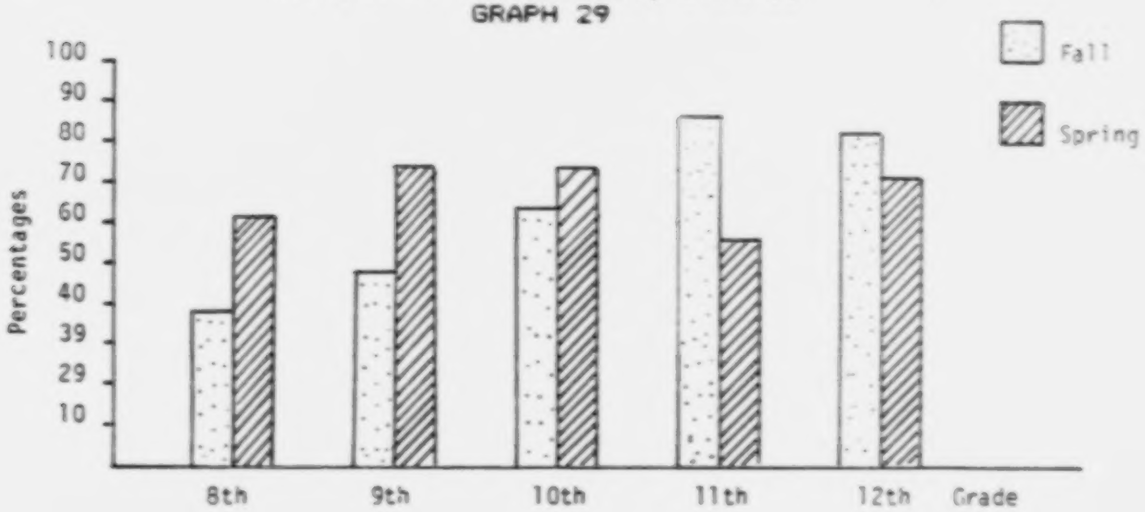
CONCLUSION:
SET OFF BY PARAGRAPHING, 1982-83
GRAPH 28



Conclusion sticks to the subject (item 28)

We have previously discussed eleventh-grade instruction on conclusion. The evaluators were giving ones for conclusions that "introduced new information". As a result, in the fall, juniors wrote conclusions that met the evaluative criteria; but they did not do so in the spring, perhaps because they had been given different instruction in writing conclusions.

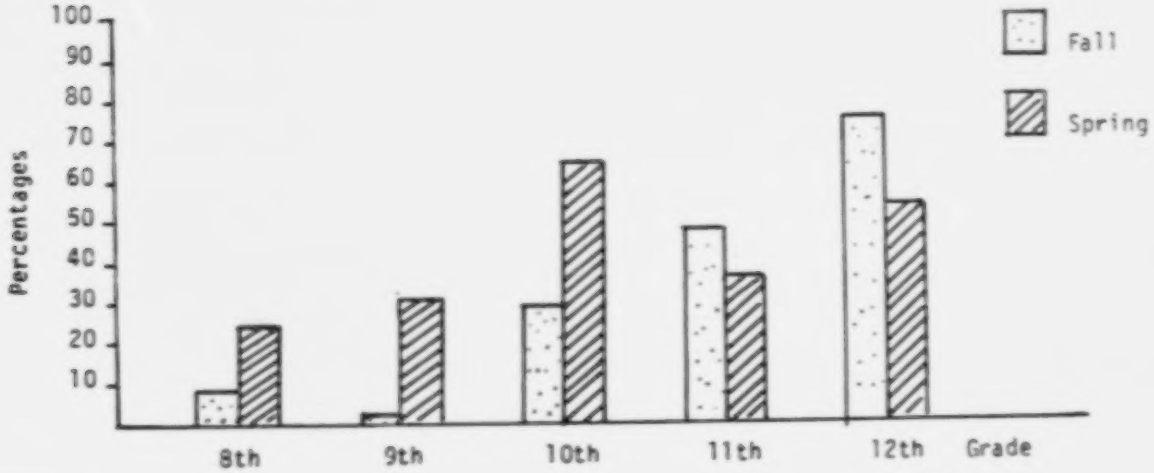
CONCLUSION:
STICKS TO THE SUBJECT, 1982-83
GRAPH 29



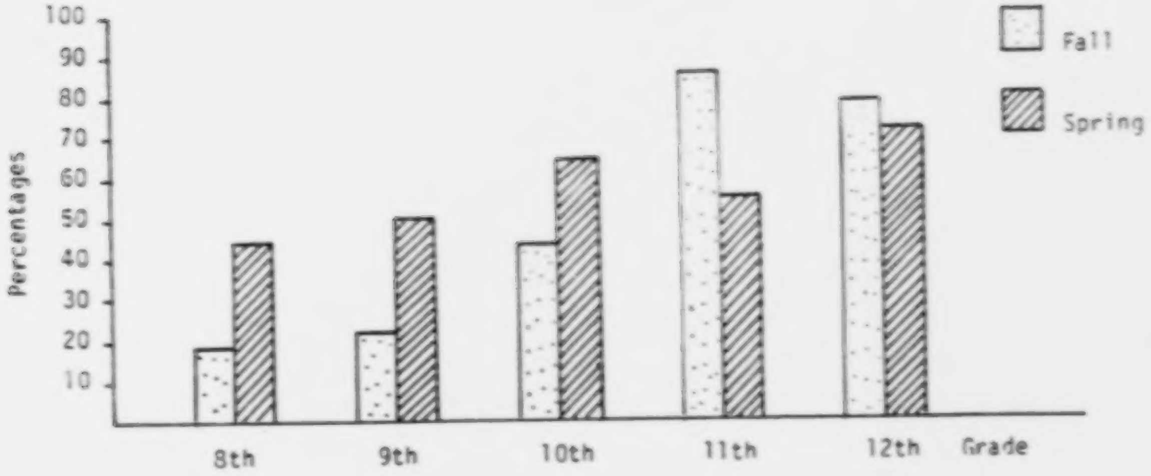
Conclusion sums up without repetition (items 27 and 29)

These are difficult skills; competence peaks in the fall, junior year.

CONCLUSION:
SUMMARIZES THE EVIDENCE TO SUPPORT THESIS, 1982-83
GRAPH 30



CONCLUSION:
SUMS UP WITHOUT REPETITION, 1982-83
GRAPH 31



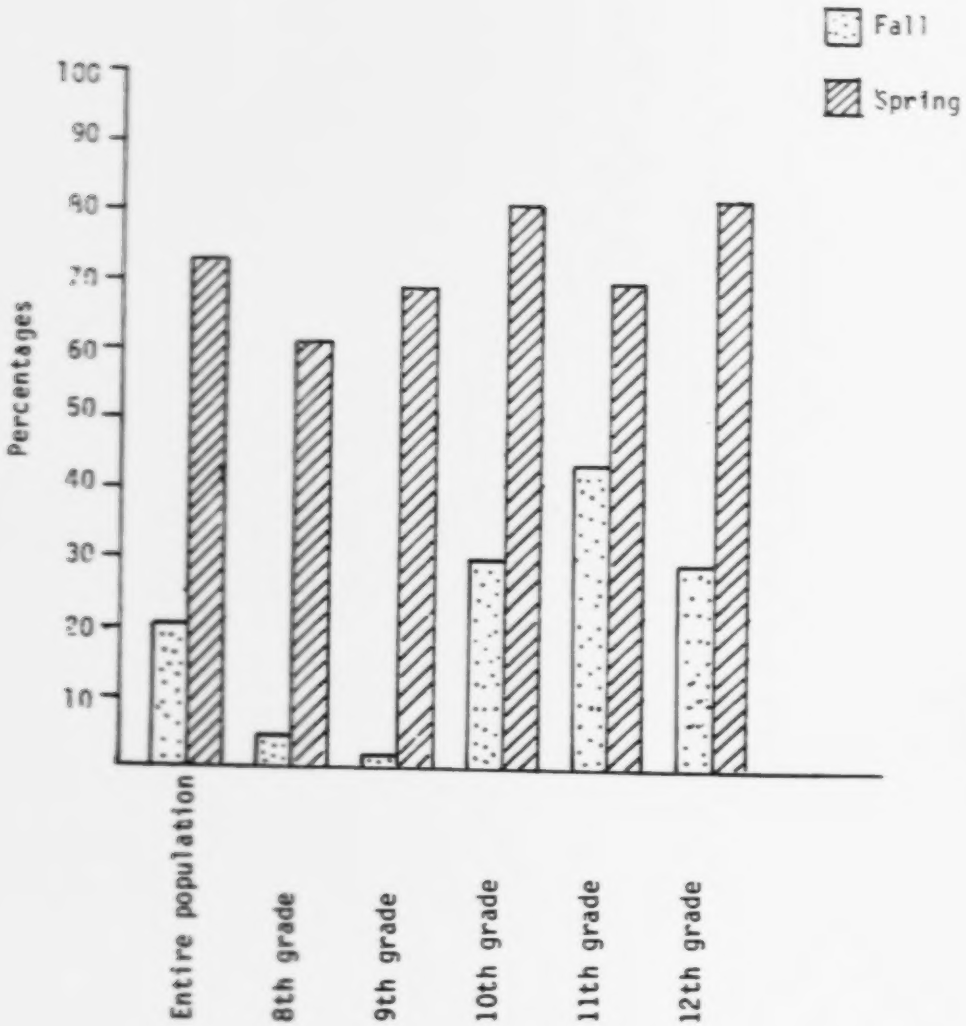
SECOND YEAR RESULTS

Analytic Scoring of Essay

In the second year of the study, the peak in ability to write the essay, using the illustration mode, occurs in the spring term of the tenth grade (104.61), not in the fall term of the eleventh grade, as was the case the first year. In the second year's study the eleventh graders' do not have a score as high as their counterparts -- eleventh graders in the first year study. Their scores peaked with 113.48 in the fall and remained steady with 112.47 in the spring.

Similar to the first year's data, the mean scores for structure peak at the tenth grade, spring (13.17); and thesis peaks at the eleventh grade, spring (24.89). The skills of using evidence, writing introductions and conclusions also peak at the tenth grade, spring.

STRATEGIES USED:
ILLUSTRATION, 1982-83
GRAPH 32

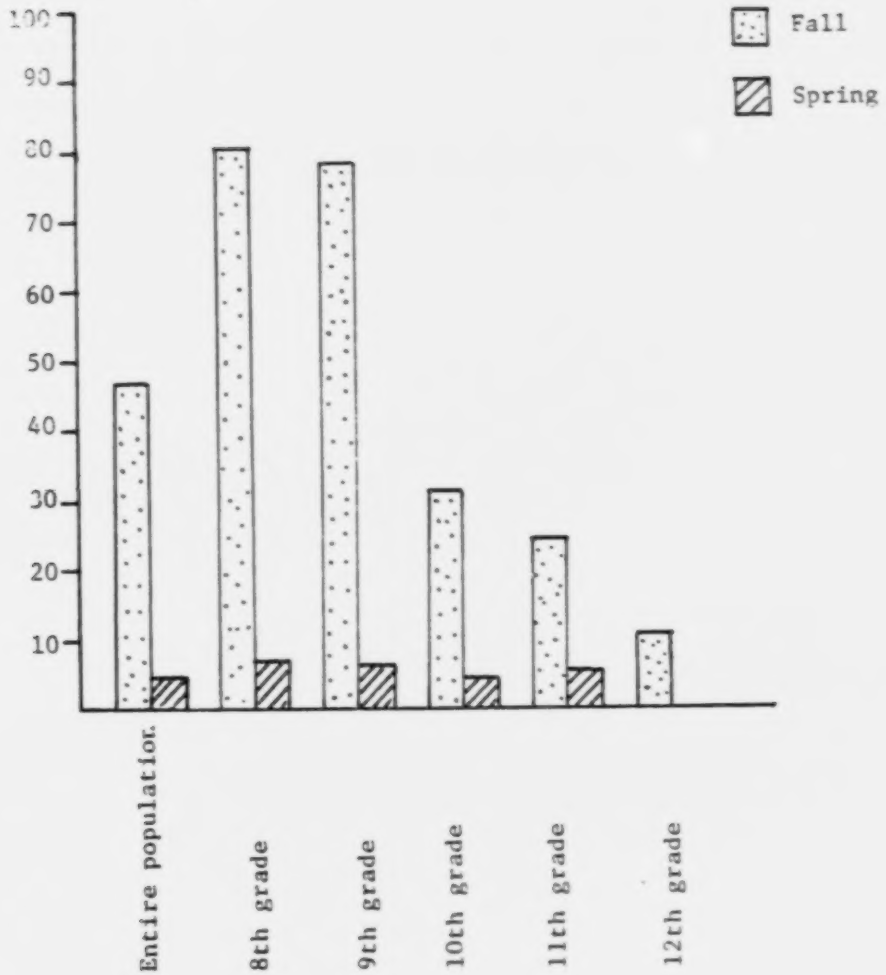


In the second year of the study, 74% of the eighth graders, 87% of the ninth graders, and 91% of the tenth graders used illustration as their primary mode of organization. In fact, 82% of the total student body used illustration as their organizational strategy in the spring papers, something we didn't see in the first year's study. The paper topic may have had something to do with this difference, or, perhaps the teachers, aware of the study, emphasized the illustration mode more than they did the first year.

Narrative

We weren't surprised to find so many eighth graders using narrative in the fall papers because it is a form they practice in grade school. Our fall, 1982 topic may also account for some use of narrative since the topic asked for a discussion of the importance of an event -- a subject that may have provoked a narrative response, perhaps explaining why three-fourths of the ninth graders used narrative in the fall. However, only ten students of the total population used narrative in the spring papers. (Students don't practice narrative in our curriculum. They may use it, however, whenever they need to relate an example in a story fashion.)

STRATEGIES USED:
NARRATION, 1982-83
GRAPH 33



In the fall papers, second year, the eighth graders didn't use *narration* as much as they had used it in the fall, first year. The topic for all, second year, asked students to discuss a person or historical figure who had interested them. Perhaps this topic didn't encourage the use of *narrative* as much as the first-year fall topic. In the spring paper the students were asked to discuss their favorite piece of fiction studied at University High School. Both fall and spring paper topics asked students to support their topic with *reasons*, encouraging the use of *illustration*.

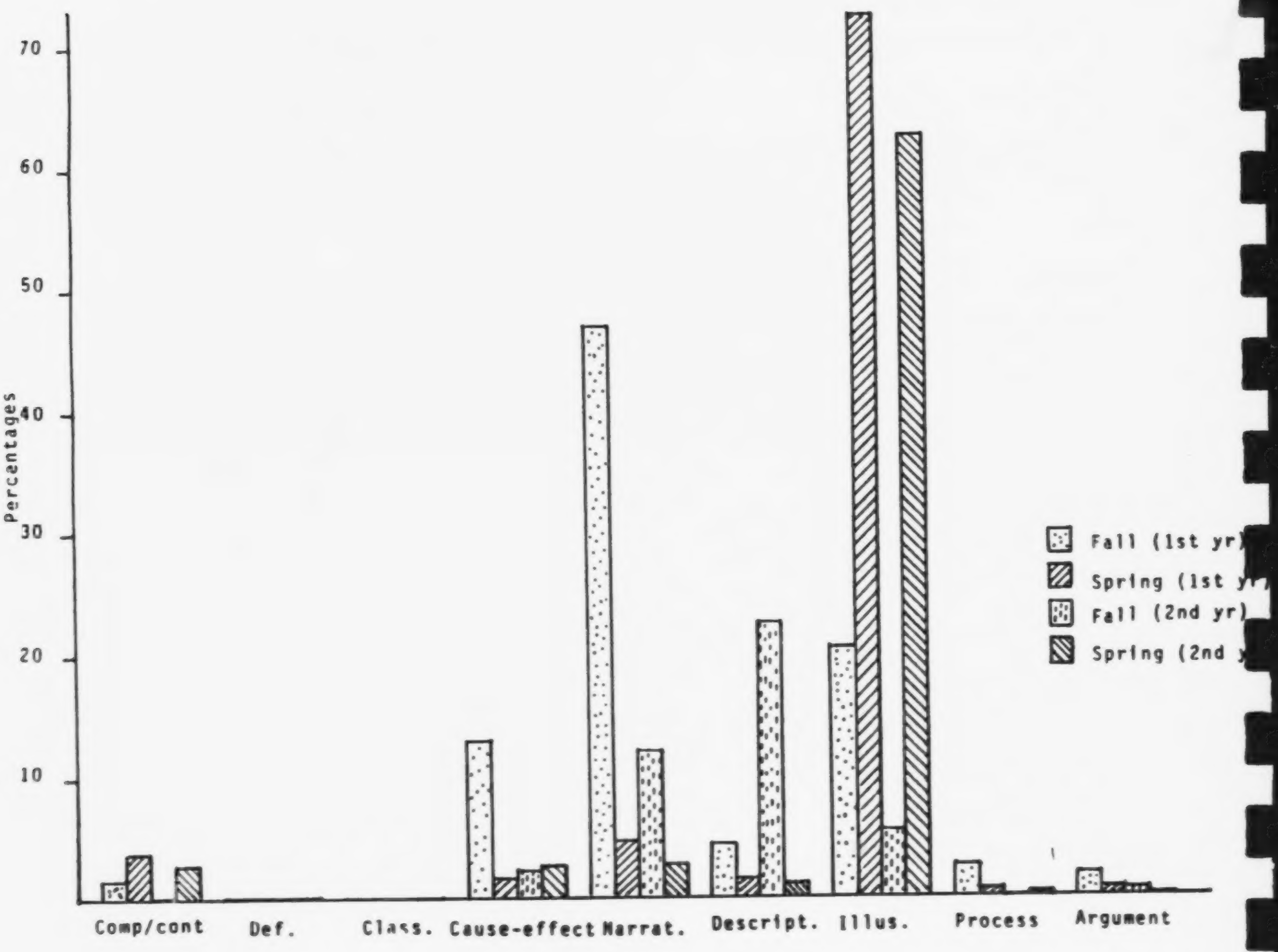
Since *illustration* was the primary mode of organization used most often both fall and spring, second year, fewer of the other strategies were used, even by the older students who had been introduced to them. Our topic assignments weren't designed for other modes even though we suggested a variety of other options for dealing with the assignment.

In the second year of the study, eighth and ninth graders used more *description* in their papers, perhaps in order to discuss the person or historical figure who interested them. The use of *description* and *narration* drops off abruptly at the tenth grade. In the spring papers, there is little use of *description* in those same grades. We see a few uses of *cause-effect* (9%) in the essays from the total student body, but no class used that strategy to a significant degree.

Other strategies

Very few students used other strategies for their major organization. Twenty-seven students, most of them tenth graders and twelfth graders, used cause-effect in the fall, probably because the fall topic suggested that students discuss the effect of a particular experience or event.

STRATEGY USED AS A PRIMARY ORGANIZATIONAL METHOD
GRAPH 34



DISUCSSION

Reliability of the Topic

We have already discussed one possible weakness of our fall, 1982 topic. It may have suggested a narrative response. Other than that possible weakness, the topics meet Richard Lloyd Jones' two specifications for an evaluation topic. First, the students must be able to do the task (42). Our topic assignments met this requirement because the eighth graders had practiced the illustration mode by the time the spring essays were administered. The older students had received additional instruction, reinforcement, and practice in using this mode. Second, Lloyd-Jones says that students should be motivated to write becaue they know something about the subject (41). Our students could write on the topic assignments with authority because they were asked to elaborate on either personal-experience or personal-preference topics. (We have already discussed the second semester seniors' lack of motivation, chapter 3.)

Reliability of the Evaluation Form

Our analytic evaluation scale seems to be a fairly reliable measure of how well students used routine procedures to write on a personal-experience topic, using the illustration mode. We realize that the form could not accurately evaluate more complex or sophisticated ways of dealing with the assignment, but we had not set out to do that.

Instruction Makes the Difference

How do we explain the consistent growth in using routine procedures? Judging from the statistical analysis, we cannot attribute the growth to what students know when they enter school or to maturity. According to the correlation coefficient between fall and spring scores, (see chapter 7) we cannot predict from the fall scores what the students will be able to do in the spring. Therefore, we conclude that our composition curriculum and classroom instruction are primarily responsible for our students' success in applying routine procedures in an impromptu personal-experience essay.

IMPLICATION FOR A COMPOSITION CURRICULUM IN THE MIDDLE SCHOOL/JUNIOR HIGH

Since our students have been accelerated one year, the mean age of our tenth graders is fourteen, the age of ninth graders in most schools. If high-ability accelerated students can show competence in using routine procedures by their fourteenth birthday, then unaccelerated tenth graders (who would be fifteen) should be able to do as well, provided they were given instruction.

In a study of 75 fifth graders and 75 eighth graders from three schools representing three different socio-economic groups, Karl Taylor found that the writing between grades in three schools changed "very little" (Development, 12). He also reports that no school in his sample "emphasized writing" (11). Since writing in his sample schools hadn't been "emphasized", this means that writing probably hadn't been taught in any organized fashion; therefore, it would be unrealistic to expect a change.

We believe that writing can be taught and that much more sophisticated composition activities can be done with younger students than is presently being done. Carl Bereiter and Marlene Scardamalia affirm this notion. In their research with younger children, they have achieved some remarkable results. They do not allow children to grope for ways to find, develop, and organize ideas, but help them through the process by "procedural facilitation" (52).

Perhaps not enough work with pre-writing occurs at the junior high or middle school, but these are the years that are most crucial in teaching the strategies of planning. For instance, much of the writing done in the grade schools and middle schools is chronological narrative. Children are not often taught other modes; consequently, they fall back on narration because it is natural for them, a form that they see in their reading. In a study of the writing of 150 children, ages 7, 10, and 13, Andrew Wilkinson, et al. found that children will use narration when it is clearly unsuitable, even using it when the topic calls for other discourse modes (219). They suggest that discursive models might be introduced much earlier than they presently are (225).

Taylor found that seventh and eighth grade students use chronological organization, even when it is inappropriate because "they read, they talk, they listen, and they write with a preference for chronology" (Teaching, 19). He also believes that it is important to introduce other models to this age group. Since the illustration mode gives students training in using examples to support generalizations, we believe that it is a useful thinking tool and should be introduced to middle-school or junior-high level students.

END NOTES
Chapter 5

1. Charles Cooper recommends that each paper be evaluated by two independent raters (19). Because of budget constraints, we were unable to hire raters for two independent readings.

2. If we were to repeat the project, we would probably give more points to structure and fewer to both introduction and conclusion.

WORKS CITED
Chapter 5

Bereiter, Carl and Marlene Scardamalia, "From Converstion to Composition: The Role of Instruction in a Developmental Process", Vol. 2 Advances in Psychology. Ed. Robert Glaser. Hillsdale, NJ: Erlbaum, 1982.

Cooper, Charles R. "Holistic Evaluation of Writing". Evaluating Writing. Ed. Charles R. Cooper and Lee Odell. Urbana, IL: NCTE, 1977.

Lloyd-Jones, Richard. "Primary Trait Scoring". Evaluating Writing. Ed. Charles R. Cooper and Lee Odell. Urbana, IL: NCTE, 1977.

Ruth, Leo and Sandra Murphy. "Designing Topics for Writing Assessment: Problems of Meaning". CCC Journal, 35 (1984) 410-422.

Taylor, Karl. "The Development of Writing Abilities, Fifth-Eighth Grades", Unpublished report, Spencer Foundation.

---. "Teaching What Can Be Learned". North Central Association Quarterly, 57 (1982), 14-21.

Wilkinson, Andrew, Gilliam Barnsley, Peter Hanna, and Margaret Swan. Assessing Language Development, Oxford: Oxford UP, 1980.

CHAPTER 6*

Syntax-Level Skills: The Product

The syntax-level curriculum has evolved over the years in the same way that the essay-level curriculum has. Twenty years ago, we used to spend a lot of time at the eighth grade identifying the five grammatical classes: noun, verb, adjective, adverb, and pronoun. As the grammar instruction at the elementary school became more intense, we abandoned the identification of grammatical classes because our students had a good grounding in terminology -- at least good enough that we believed we could spend most of our time teaching syntax-level skills, rather than identifying grammatical classes.

Since the students come to University High School with a fairly good background in the basic grammatical terms, we decided to place emphasis in our grammar/syntax program on the clause, teaching the five sentence skeletons and a modified version of Christensen's cumulative sentence rhetoric.

THE SENTENCE SKELETON

Since the height of the structural linguists' work on the English sentence, our syntax-level curriculum has included a study of five sentence skeletons, some adapted from Paul Roberts'ten basic patterns (27-47). We chose five of the most basic of the ten patterns and added the passive and expletive. Roberts' classification uses the Subject-Verb-Object pattern as well as the Subject-Verb-Indirect-Object-Object pattern. We combine the two, under one pattern -- Subject-Verb-Object (S-V-O). We also combine predicate adjectives and predicate nominatives under complements when we teach the Subject-Linking-Verb-Complement pattern (S-LV-C).

---

*See Appendix III Tables 13 to 19 for additional support for this Chapter

The terms complement, passive, active, object, and expletive are new to our eighth-grade students, so building upon what they already know about the six grammatical terms, we have simplified our instruction so that we can spend most of our time drilling the five sentence skeletons: S-V, S-V-O, S-LV-C, S-PV-(A), and It/There (expletive). We believe that sentence imitation and drill are necessary to make students proficient at the clause level. We also believe that when students realize the choices that are open to them in writing the English sentence, they will have better control over their sentences. This is the age (between 12 and 14) when students begin to expand their sentences and try out new patterns. They are going through a developmental stage when imitation of patterns and exercises in sentence-structure are the most useful (Daiute, 220-221).

Questions

Since we were interested in knowing how effective our teaching of the sentence skeletons was, we asked the following questions:

1. What is the percentage of each kind of sentence skeleton per T-Unit?

> 2. How do our students (grades 8 - 12) compare with other students of comparable ages in their use of sentence skeletons?

Much of the syntax research in the last two decades has dealt with sentence length and T-Unit length. So we found that it was necessary to count those elements in order to compare our students with those in other studies, even though we have never been particularly concerned with sentence length in our students' writing. We have been concerned with length of bases, however. Because we wanted to compare the results of our study with others, we developed our Question #3:

> 3. How do our students compare with other students in sentence length and T-Unit length as well as number of T-Units per sentence?

Whenever possible, we compare our students to high-ability students. In some instances, we compare our twelfth graders with college freshmen, using high-ability freshmen for comparison, if possible. Even though our eighth grade is an accelerated seventh/eighth grade combined (median age eleven), we have compared their performance with high-ability eighth graders, whenever possible.

Method

We counted the number of sentence skeletons in all main clauses (sentence bases) in the first 300 words of the impromptu essays. If the skeleton was not idiomatic or clear, we counted it as ambiguous. We counted fragments as errors, so they were not coded. We also counted the number of words in T-Units and sentences because many of the studies discuss the percentages of sentence skeletons or structural patterns to T-Units.[1]

Results

> Question #1: What is the percentage of sentence skeletons per T-Unit?

Subject-verb skeleton

Students in all grades use a higher percentage of the S-V pattern in the fall papers (14.80%) than in the spring (5.0%), perhaps because of the paper topic, fall term. They describe a significant event or experience; consequently, they use many intransitive verbs:

```
I jumped with fear    or     She acted strangely
S    V  (modifier)             S     V   (modifier)
```

Subject-Verb-Object and Subject-Linking-Verb-Complement Skeletons

We see fewer S-V skeletons in the spring papers, but more S-V-O (55.0%) and S-LV-C's (31.66%), perhaps because the topic calls for an analysis of a favorite character. We see many S-V-O's such as:

```
I admire J.R.          or     I admire Remington Steele
S   V    O                      S    V          O
```

Certainly the percentage of S-LV-C sentences is logically associated to the topic:

```
Scarlet is headstrong, or
   S     LV   C(adj.)
```

```
Anne of Green Gables is my favorite, or
     S                LV      C(adj.)

I would like to be Alan Alda.
S     LV              C(noun)
```

Passive-Verb and Expletive Skeletons

We see the passive used more in the eleventh and twelfth grades, especially in the fall papers (4.52%). The topic might have required more passive, particularly in constructions such as this:

```
I was invited to go to Russian camp.
S    PV(past tense)
```

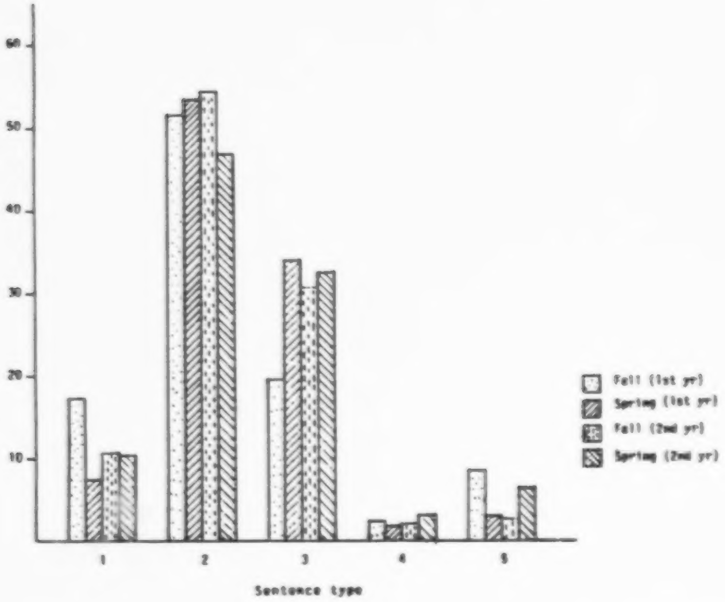
In the second year of the study, students use a lower percentage of S-V's in the fall (7.34%), but a higher percentage in the spring (8.92%), more S-V-O's (56.37%) in the fall and fewer in the spring (46.44%). They use more S-LV-C's than in the first year, fall, but about the same percentage as the first year spring. We see a high percentage of S-PV's (2.78%) in the spring second year and also more It/There (expletive) (6.29%) in the spring, second year. The paper topics might have had something to do with these differences. In the fall the topic asked students to discuss the strengths or weaknesses of a person or an historical figure that interested them. This topic may have called for person-did-what (S-V-O) sentences, rather than the intransitive nature of the S-V pattern. This may explain the fewer number of S-V's, but an increase in the number of S-V-O's.

The second year spring papers called for a discussion of a favorite literary work studied at University High School. The students could discuss the main character of their favorite work if they wished. It is possible that the increase in S-PV's, S-LV-C's, and It/There (expletive) sentence skeletons came from structures like the following:

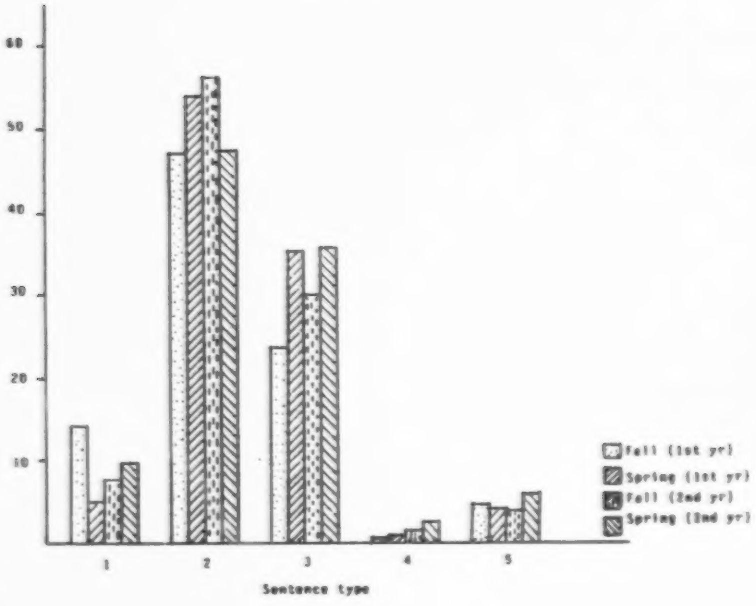
1. There are many pieces of fiction that we have studied in the last years that I didn't (or did) like. (It/There, expletive)
2. It isn't possible to discuss all of my favorite characters. (It/There, expletive)
3. Ulysses is the kind of man that I can identify with. (S-LV-C)
4. Merlin is my favorite character because... (S-LV-C)
5. Oedipus was shunned when the townspeople learned that he had killed his father and married his mother. (S-PV)
6. When Miss Caroline learned that Atticus was teaching Scout to read, she was reprimanded. (S-PV)

PERCENTAGE OF SENTENCE TYPES
FIRST AND SECOND YEAR

8th GRADE
GRAPH 1

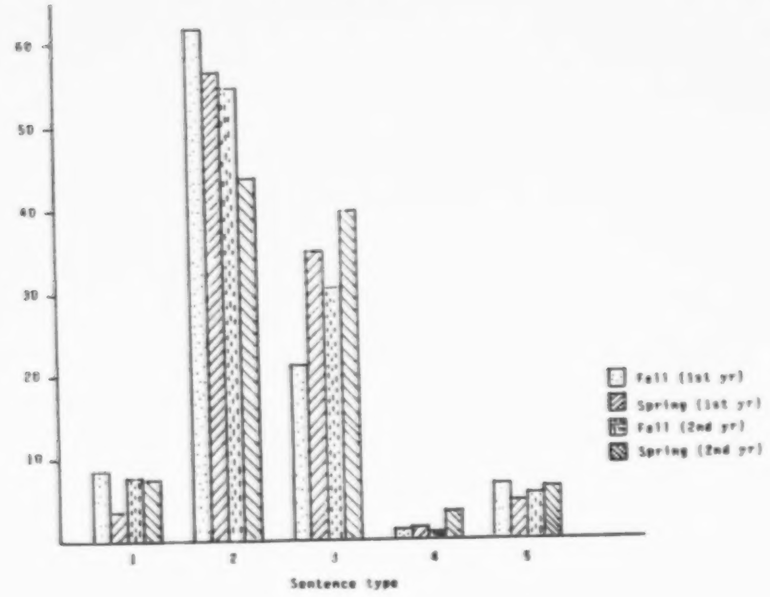


9th GRADE
GRAPH 2

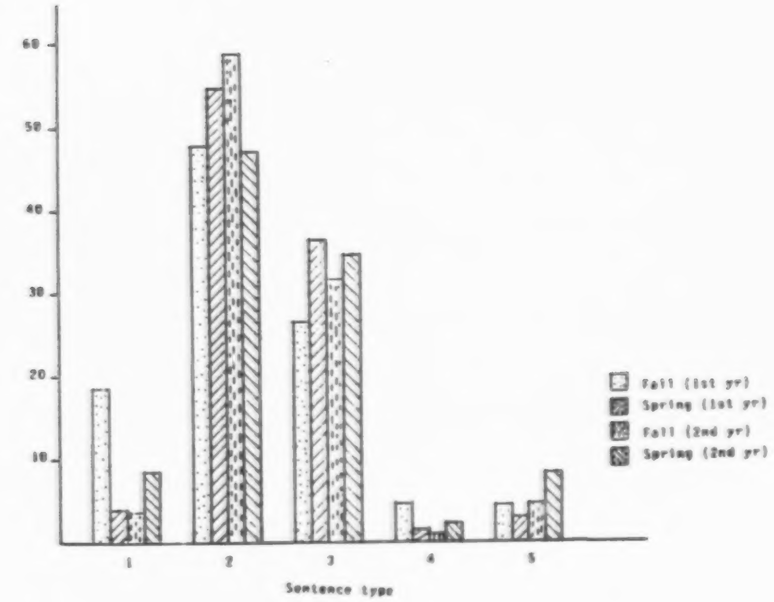


PERCENTAGE OF SENTENCE TYPES FIRST AND SECOND YEAR

10th GRADE
GRAPH 3



11th GRADE
GRAPH 4



PERCENTAGE OF SENTENCE TYPES FIRST AND SECOND YEAR

12th GRADE
GRAPH 5

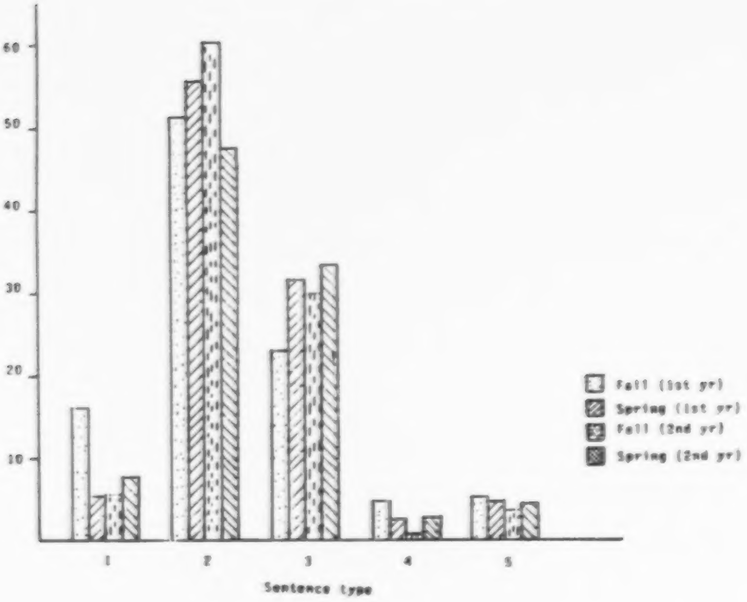


TABLE 1
SYNTAX ANALYSIS FOR SENTENCE TYPE
T-TEST FOR DIFFERENCES BETWEEN FALL AND SPRING

FIRST YEAR

SENTENCE	TOTAL	8th	9th	10th	11th	12th
Type 1 (Decrease)	***(N)	**(N)	***(N)	*(N)	***(N)	***(N)
Type 2						
Type 3 (Increase)	***	***	***	***	*	*
Type 4						
Type 5 (Decrease)	***(N)	***(N)				
Type 6 (Decrease)		*(N)				

SECOND YEAR

SENTENCE	TOTAL	8th	9th	10th	11th	12th
Type 1						
Type 2 (Decrease)	***(N)	*(N)		**(N)	*(N)	**(N)
Type 3 (Increase)	***			**		**
Type 4 (Increase)	**			*		
Type 5 (Increase)	***	*				
Type 6						

N = Mean percentage of spring semester is significantly lower than that of fall semester.

* = .05 level
** = .01 level
*** = .001 level

Comparisons With Other Studies

Sentence Skeletons

> Question #2: How do our students (grades 8 - 12) compare with other students of comparable ages in their use of the sentence skeletons?[2]

Our students' percentage of active to passive (per T-Unit) is approximately 60% to 66% active and 1.5% to 2.24% passive (total school population, first year). They use between 22.42% to 34.5% S-LV-C. Their use of the Expletive goes down from fall to spring (5.83% fall and 4.0% spring). The second year of the study, the range is from 55% to 65% active and 1.36% to 2.78% passive. Their use of the S-LV-C skeleton is similar to the first year's: 30.76% in the fall and 35.67% in the spring. The expletive goes up, different from the first year's data: 4.03% in the fall and 6.29% in the spring. Overuse of the passive and expletive is a common problem with young writers, particularly if they don't know their subject matter well, so we teach students that the passive and expletive patterns have particular uses and should be used sparingly. We also advise them to use the who-does-what (S-V-O) pattern because it provides specificity.

Roy C. O'Donnell, et al. in a study of kindergarten and elementary school children, found that seventh graders use about 86% active and 1.05% passive per T-Unit (73). Ann O. Gebhard, in her study of freshmen college writing, didn't count passives, but extrapolating from her evidence, we deduce that she found good freshmen students using approximately 65% active voice (216), comparable to what our students use.

TABLE 2
PERCENTAGE OF SENTENCE TYPES PER T-UNIT
Comparison of University High School (Uni) Seniors with
GOOD Freshman Writing: Gebhard

	Freshmen = 21 T-Units = 269	Spring, 1st Yr Uni 12th = 39 T-Units = 20.15	Spring, 2nd Yr Uni 12th = 33 T-Units = 19.03
S-V	32.40	5.53[1]	7.54
S-V-O	32.90[2]	55.78	47.62
S-LV-C	25.4[3]	31.66	33.16
S-PV	not counted	2.51	2.62
It/There	4.70	4.52	4.40
Other	4.60	0.00	.047

---

[1] First year, fall, this number was very high: 16.08.
[2] Combining S-V-O, S-V-IO-O, and S-V-O-C
[3] Combining S-LV-C (N) and S-LV-C (A)

TABLE 3
PERCENTAGE OF SENTENCE TYPES PER T-UNIT
Comparison of University High School (Uni) Eighth Graders with O'Donnell's Seventh Graders

	O'Donnell Study 7th Grdr = 30 T-Units = 100	Spring, 1st Yr Uni 8th = 42 T-Units = 20.38	Spring, 2nd Yr Uni 8th = 53 T-Units = 20.11
S-V	43.37	7.39	10.29
S-V-O	42.40[1]	53.69	46.89
S-LV-C	7.45[2]	34.00	32.77
S-PV	1.05	1.97	3.13
It/There	1.98	2.96	6.46
Other	0.00	0.49	0.30

---

[1] Combining S-V-O, S-V-IO-O, S-V-O-O-N Complement and S-V-O Adj. Complement

[2] Combining S-LV-C (N) and S-LV-C (A)

Our seniors write decidedly fewer S-V's than college freshmen in the Gebhard study, but they seem to write more S-V-O and S-LV-C sentences. The number of expletives (It/There) is about the same. The differences in numbers of the three basic sentence patterns may be related somewhat to the subject, as pointed out earlier.

We see that our eighth graders show a similar pattern in comparison with O'Donnell's study of seventh graders: fewer S-V's, but many more S-LV-C's. Our students write more passive constructions and expletives than the O'Donnell sample.

In their samplings, Gebhard used 269 T-Units and O'Donnell, et al., used 100 T-Units. Our mean number of T-Units per composition ranges between nineteen and twenty; however, we did have four essays in a two-year time span, and the results are quite similar; therefore, we believe that the data based on our sample is fairly reliable.[3]

> Question #3: How do our students compare with other students in Sentence Length and T-Unit Length? How do they compare in the number of T-Units per sentence?

T-Unit Length

Hunt in his study of more than a thousand students in grades 4, 6, 8, 10, and 12, found that, as students mature, they write fewer T-Units per sentence but longer T-Units and sentences (Syntactic, 6). N.S. Blount, et al. reaffirmed Hunt's conclusions about increased T-Unit length as a reflection of syntactic maturity (26). Loban found in his study of high-ability students that the average number of words per T-Unit increases, particularly at the tenth and twelfth grades (33). Murray Stewart's study shows that the mean length of T-Units increases from grades 10-12, with high-ability seniors peaking in number of words per T-Unit (41).

Our seniors T-Unit length is about the same as those in the Blount, et al. study, but higher than the students in the other three studies. Our students' T-Unit length stays fairly stable up through the twelfth grade. In fact, it is stable for the entire student body is stable: fall, first year 13.42, second year, 13.08; spring, first year, 14.33, second year, 14.92.[4]

TABLE 4
MEAN T-UNIT LENGTH OF JUNIOR-HIGH/HIGH SCHOOL STUDENTS
HIGH ABILITY

Study	Number	8th	9th	10th	11th	12th
Blount, et al p.21	8th=32 12th=38	11.80				15.90
Hunt, 1970 p. 17	50 each	11.66		11.66		12.30
Loban p.33	35 each	11.24	11.09	12.59	11.82	14.06
Stewart p.41	xx			12.12	13.24	13.90
Uni HS, Sprg	8th=40	13.70				
First Year	9th=46		15.10			
	10th=42			15.37		
	11th=36				14.98	
	12th=39					15.21
Uni HS, Sprg	8th=53	13.90				
Second Year	9th=53		15.18			
	10th=46			15.88		
	11th=40				15.91	
	12th=33					16.35

It appears that our students are writing T-Units that compare favorably with high-ability students in other studies.*

Number of T-Units Per Sentence

Hunt's findings that boys and girls tend to write fewer T-Units per sentence as they mature (Syntactic, 6), does not quite jibe with what we found in our first year data because our 8th, 10th, and 12th graders write about the same number of T-Units per sentence. The second year, the pattern is more like what Hunt found -- the 12th graders wrote fewer than the other two grades.

TABLE 5
MEAN NUMBER OF T-UNITS PER SENTENCE

Study	Number	8th	10th	12th
Hunt[1] 1965 p. 39	18 each	1.37		
Hunt[2] 1970 p.20	50 each	1.245	1.131	1.08
Uni HS, Sprg First Year	8th=40	1.17		
	10th=42		1.19	
	12th=39			1.17
Uni HS, Sprg Second Year	8th=53	1.21		
	10th=46		1.19	
	12th=33			1.05

[1] Analyzed the writing of students
[2] Analyzed how students re-wrote a passage "Aluminum"

Sentence Length

Hunt's 1970 conclusions included a statement about sentence length: As students mature, they write longer sentences because their T-Units are longer (Syntactic, 6). Blount, et al. tested Hunt's conclusions and learned that eighth graders "achieve longer sentence length by coordinating main clauses, usually with and, but, or no punctuation whatever" (26). He agreed with Hunt's view that older students write longer T-Units.

Our students write sentences about the same length as the students in Blount's study, but much longer than the sentences in Hunt's 1970 study. One explanation may be that Hunt's study consisted of a rewritten version of the "Aluminum" passage used in his 1965 study. In contrast, our study and Blount's used original student writing. Blount collected writing samples that we assume were not impromptu assignments but assignments students worked on in class or at home, allowing ample opportunity to edit. Our writing samples allowed little opportunity for editing in the 50-minute time slot allowed for the impromptu essay. Without an opportunity to edit, our students may have written longer sentences than they might under different circumstances.

TABLE 6
MEAN SENTENCE LENGTH
HIGH ABILITY

Study	Number	8th	10th	12th
Blount, et al	8th=32	15.00		
p. 21	12th=38			17.50
Hunt 1970 p.15	50 each	12.45	12.33	12.66
Uni HS, Sprg	8th=40	15.80		
First Year	10th=42		17.80	
	12th=39			17.40
Uni HS, Sprg	8th=55	16.30		
Second Year	10th=40		18.70	
	12th=33			18.27

SENTENCE BASE GRAMMAR

Ever since Kellogg Hunt's 1965 research on the sentence, in which he claimed that length of the T-Unit was a valid measure of a "mature style", much controversy and research has centered on the issue of what constitutes syntactic maturity.* As a result of Hunt's research, many methods for training students in syntax skills has emerged among which is Christensen's method of teaching the cumulative sentence.

In the seventies, we chose to teach an adaptation of the Christensen method to our ninth and tenth grade students, after providing a grounding in the sentence skeletons (at the eighth grade) because it seemed to be an efficient, practical, and easy system for students to master. We were also interested in showing students that the sentence is an effective rhetorical tool.

Bases and Free Units

In this simple, but useful and flexible system, the student learns to handle what the teachers know as certain types of phrases, main and subordinate clauses, subordinating conjunctions, and standard methods of punctuation. But the terminology is kept simple. The sentence base is a complete statement of the kind that students have had practice in writing. To this base is added a free unit. It does not matter whether the free unit is a clause, phrase, or single word since the techniques of "addition" is the same.

Punctuation

Since punctuation is automatically done at the "joint" where the free unit is added to the base, students learn a system of punctuation that is tied directly to the sentence base grammar. Consequently, we counted comma splices and run-on sentences.

Terminology

So far as the terms of grammar are concerned, a student needs only these: base and free units, these last being of three kinds -- openers, interrupters, and closers. Unlike most grammatical systems, these mean just what they seem to mean. Bases are the main or complete statements, while free units are incomplete and are detachable from bases. As free units, openers, interrupters, and closers do what their names imply -- open, interrupt, and close sentence bases.

Subordination

Along with this system, we teach subordination because the clause is the heart of grammar. The theory of subordinate clauses need not be made difficult. So far as the young writer is concerned, they are formed exactly as are main clauses, by a noun mariied to its own verb; and subordinates use modifiers and complements in the same way that main clauses do. The differences between main and subordinate clauses are, first, that subordinate clauses are incomplete statements and, second, that in practice such clauses are generally "signaled" by one of a rather small group of words or phrases such as which, since, if, while, what, so that, who, because, that, though, although, and where. These subordinating signs (or signals), as they may be called, tell a reader that subordination is occuring.

Why is a knowledge of the clause so important for the young writer? Simply because to write sentences is to make statements, and the young writer ought to know how clausal statements are usually made and in what typical patterns. Some typical patterns, with the subordinating signs capitalized, follow:

(a) Main clause (base)	I won't eat lunch today.
(b) Subordinate clause as opener:	SINCE my stomach hurts, I won't eat lunch today.
(c) Subordinate clause as closer:	I won't eat lunch today, ALTHOUGH the cafeteria is serving my favorite food.
(d) Subordinate clause as interrupter:	The cafeteria, WHICH is serving my favorite food, will probably ruin it.
(e) Subordinate clause as subject:	WHAT the cafeteria does to food is unbelievable.
(f) Subordinate clause as object:	I don't know HOW they manage to ruin food so consistently.

Parallelism

After the students know how to use the free modifiers, they can practice parallelism by writing the free modifiers in doublets, triplets, etc.

Series of subordinate clauses as openers (since understood):

> Since my stomach hurts, my teeth ache, and my fever is rising, I won't eat lunch today (series of triplets).

Two subordinate clauses as closers:

> I won't eat lunch today, although the cafeteria is serving my favorite food, and there's none home to cook.

Series of nouns acting as interrupter:

> The cafeteria, which is serving my favorite food -- beans, wieners, and cornbread -- will probably ruin it.

Series of participials acting as interrupters:

> What the cafeteria does to food -- burning, scorching, and shrivelling -- is unbelievable.

Series of participials acting as closers:

> I don't know how they manage to ruin food so consistently -- burning, scorching, and schrivelling.

(We counted the number of parallelisms and the number of faulty parallelisms separately.)

QUESTIONS

Since we had no evidence that our system was getting results, we decided to ask the following questions:

1. How do the students progress in their use of the free units?
2. Do the free units and bases become shorter or longer after students have received instruction in sentence base grammar?
3. Based on recent research, how do University High School students compare with other students in using free modifiers?
4. Do the number of parallel structures per 300 words increase by grade level? Do faulty parallel structures decrease?
5. Do the number of sentence errors (fragments, run-on sentences, comma splices, and weak signals) decrease by grade level?

METHOD

Using the first 300 words of the impromptu essays, we counted the number of instances and number of words in the following:

1. Bases.

2. Free units. (includes openers, interrupters, and closers).

3. Signals. (tallied separately, because a signal is usually an opener). We wanted to know how well students were "signalling" the direction their essays should be going.

We counted the number of instances of grammatically or rhetorically effective parallelism. We also counted the number of punctuation errors (comma splices and run-ons).

Bases and Free Units

Sometimes our decisions on whether to count free units were based on rhetorical considerations. Since the boundaries of free units and bases are marked by punctuation -- period, comma, dash, parenthesis -- we had to make judgments based on what the sentence said. Immature writers are notoriously poor in using punctuation marks, particularly in an impromptu paper written under specified time restraints. Even mature writers do not always mark boundaries alike since punctuation is not a science. Therefore, in tallying, we were forced to make certain decisions.

This sentence will explain our method of tallying if a student omitted a punctuation mark at the "joint" where it was needed:

> After leaving the ball park we went to the hotel for dinner.

We knew that the opener in this sentence demands a comma after park; therefore, this sentence was coded as having a five-word opener and seven-word base. The subordinating conjunction after was also coded as a signal.

A student might write: After the picnic, the students wet to the bone went home. In this case, the student has omitted the opening and closing commas after the interrupter, wet to the bone. The coder counts this free unit as an interrupter because wet to the bone interrupts the base, the students went home.

Grandpa goes upstairs whistling to himself would be coded as having a three-word base, and a three-word closer, whistling to himself.

T-Units and Parallelism

Kellogg Hunt defines a T-Unit as "a unit which contains one main clause with all the subordinate clauses attached to it" (Early Blooming, 93). In the Christensen system, the T-Unit would be the base with all the free units attached to it. Here is an example of how the two systems work together:

BASE #1: Alexander was actually a Macedonian,

S-LV-C five-word base five-word T-Unit

BASE #2: but his father, Philip of Macedon,

signal base begins interrupter

had spent most of his life conquering Greece,

base completed

bit by bit.

closer

TOTAL: ten-word base and sixteen-word T-Unit

TOTAL number of words in sentence: 22

TOTAL number of parallel structures: (2 clauses or 2 bases, both parallel, counts as one parallel structure; bit by bit, a doublet, counts as one) which equals two parallel structures, both acceptable forms.

Run-On Sentences

In our composition program, we do not distinguish between run-on and fused sentences. We tallied as run-ons those sentences that are run together without any punctuation or capitalization to indicate where the first sentence ends and the second begins, such as: I went on a large airplane I was away from home almost the whole summer.

Faulty Parallelism

Faulty parallelism occurs when students do not use items that are (a) roughly equal in importance or emphasis, or (b) written in the same grammatical form. For example, a student mixes grammatical form: A good hunting dog can find the bird, as well as bringing him back to the hunter. Revised: A good hunting dog can find the bird and bring him back to the hunter.

Comma Splice

The error is that of "splicing" two main clauses (or bases) with a comma instead of separating them properly (usually with a period or semi-colon). Scarlett O'Hara is my favorite character, she stood up to all who criticized her.

Weak Signal

A weak signal is a subordinator, coordinator, or sentence link that doesn't appropriately introduce the idea that follows. For instance, the use of the work like in this sentence is a weak signal: He is a good doctor. Like he helps his patients overcome their injuries. The student probably means: He is a good doctor because he helps his patients overcome their injuries.

RESULTS

Question #1: How do students progress in their use of free modifiers?

Christensen disagrees with Hunt's idea that long sentences and long T-Units are evidence of a mature style. He believes that the reader must easily decode what he or she reads; consequently, "The long clause is not the mark of a mature style but of an inept style"... (Notes, 141).[7] He found that professional writers usually use short base clauses with a high percentage of words in free modifiers (openers, interrupters, and closers). In his study of professional writers, he found that the average length of base clauses was 13.3 words (Notes, 144). We found the average length of the base clause, grades 8 - 12, was 11.64 with seniors having 12.19 words per base.

In the professional writing Christensen cites as models of good style, 22% to 42% of the total words are in free modifiers (Notes, 144). Our students, grades 8 - 12 used 19.69% of their total words in free modifiers in the first year of the study with eleventh graders writing 22.81%. The improvement from fall to spring in each grade level is significant except at the twelfth grade when the percent dropped by .5%.

Our second year data isn't quite as positive, but other research studies have warned us that syntax counts may fluctuate from paper to paper, depending upon which mode the student uses.* The second year, the percentage of words in free modifiers (entire student body) was 16.2 in the spring, dropping from 17.0 in the fall. The eleventh graders used 21.1% free modifiers in the fall.

We are aware that the younger children, before being introduced to the *sentence base* grammar, don't make conscious choices to use *openers*, *interrupters*, or *closers*. They have been taught *appositives* and *non-restrictive clauses* in grade school, so when they enter University High School they write acceptable sentences like John Wayne, *my favorite movie actor,* always plays in cowboy movies. Or, *After seeing a John Wayne movie*, I used to want to be a cowboy. Therefore, we cannot take credit for the young students using *openers* or *interrupters* at the eighth grade; however, the length of their *openers* decreases from fall to spring (7.33 to 4.80), and the number of *openers* decreases from fall to spring with a corresponding increase in the number of *interrupters* and *closers*. In fact this seems to be the general pattern in both years: a higher number of *openers* in the fall papers with a decrease in the spring papers. At the same time we see an increase in the number of *interrupters* and *closers* in the spring, a pattern that may show the students are making a conscious effort to use more free units at the medial and final position. The total student body's mean number of words in openers decreases from 6.77 to 5.07; closers increase from 1.86 to 2.79; and interrupters reduce from 2.69 to 2.38 in the spring. (The change in the second year is not as great between fall and spring.)

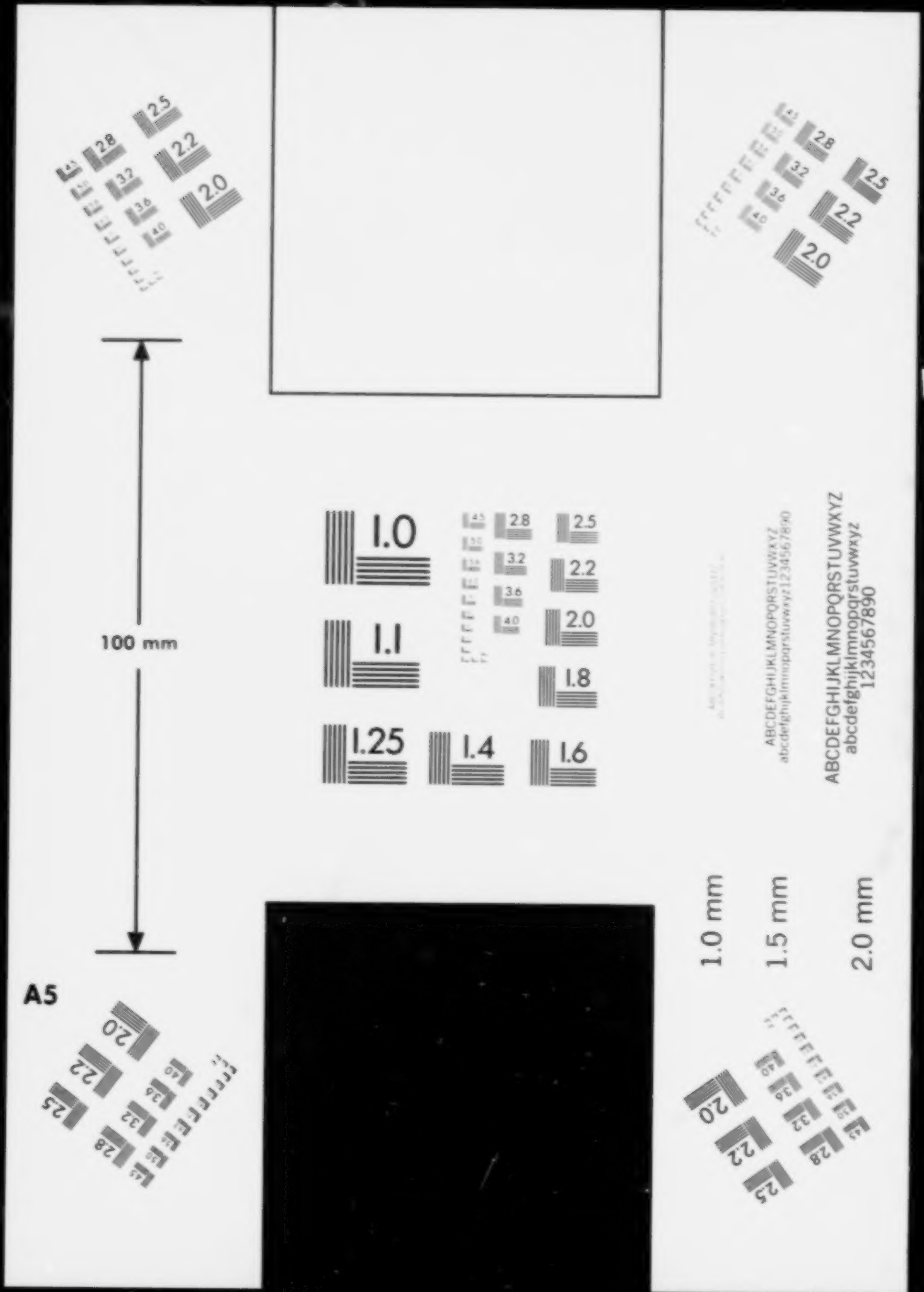
> Question #2: Do the free units and bases become shorter or longer after students have received instruction in sentence base grammar?

Since Christensen believes that short base clauses, not long sentences or long T-Units, creates a mature style (Notes, 144), we stress the need for short base clauses, with information packed in free units. We see a significant improvement from the fall term to the spring term (first year) in the total mean number of words in free units (50.82 to 57.20), with an increase in the mean number of words per free unit (4.72 to 5.33). The mean number of words per base does increase (10.72 to 11.36). The mean number of bases goes down (from 21.62 to 20.02) which may be a result of more words going into free units, signs of a mature style, according to Christensen.

> Question #3: Based on recent research, how do University High School students compare with other students in using free units?

After teaching a college-level course similar to the five year sequence we use, Glenn J. Broadhead and James A. Berlin found that students in five classes improved in the use of free modifiers. Comparing the achievement of these college students with our

4


100 mm
A5
PG
1.0
1.1
1.25
1.4
1.6
1.8
2.0
2.2
2.5
2.8
3.2
3.6
4.0
4.5
5.0
ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz1234567890
ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890
1.0 mm
1.5 mm
2.0 mm

seniors, we find that our seniors compare favorably with the college students in mean base-length and mean free-modifier length.*

TABLE 7
MEAN BASE LENGTH -- MEAN MODIFIER LENGTH
COLLEGE STUDENT POPULATION

Study	Number	Mean Base Length	% Free Modifiers	Mean Free Modifier Length
Broadhead & Berlin p. 307	5 classes	12.2	39.00	4.60
Uni HS, Sprg First Year	12th=39	11.86	18.30	5.41
Uni HS, Sprg Second Year	12th=33	13.25	18.10	5.33

Comparing our seniors with the college students in the Broadhead/Berlin study, we find that our seniors use the sentence base grammar as well as the five college classes receiving conventional instruction except in percentage of free modifiers.

Anthony Wolk, Anne Gebhard, and Lester Faigley -- have all used the Christensen method to test competency in sentence-structure. We compared our students with the college students in their studies. Anthony Wolk asked students in his classes to count the number of free modifers in their papers. Comparing our students with his, we see that our seniors compare favorably with Wolk's students in the percentage of free modifiers used. They also compare favorably in the use of openers and interrupters, but not as favorably in the use of closers.

Comparing our students to the good freshmen writers in the Gebhard study we find that our students use a much lower percentage of free modifiers with fewer words in openers and closers. Our students have more words in their bases than the students in the Gebhard study.

Lester Faigley, in a study of four control and experimental groups of college freshmen, found that, after studying the Christensen method, the experimental group used 19.29% of their total words in final free modifiers (201). This is a considerably higher percentage of closers than our students use.

TABLE 8
MEAN BASE LENGTH, MEAN T-UNIT LENGTH AND PERCENT OF FREE MODIFIERS
COLLEGE STUDENT POPULATION

Study	Number	Mean Base Length	Mean T-Unit Length	% of Free Modifiers
Wolk p. 60	41			20.9
Faigley* P. 205	70		15.65	
Gebhard** pp. 214 & 229	21	11.60	16.33	35.5
Uni HS Seniors First Year, Sprg	39	11.86	14.66	18.92
Uni HS Seniors Second Year, Sprg	32	13.25	17.03	18.30

* Control Group
** Good Freshman Papers

TABLE 9
FREE UNITS -- INITIAL, MEDIAL AND FINAL
COLLEGE STUDENT POPULATION

Study	Number	Initial	Medial	Final
Wolk p. 60	41	8.7	3.8	8.4
Faigley* P. 205	70			19.29
Gebhard** pp. 214 & 229	21	19.5	5.9	10.1
Uni HS Seniors First Year, Sprg	39	8.33	6.33	3.65
Uni HS Seniors Second Year, Sprg	32	9.7	5.5	2.8

* Control Group
** Good Freshman Papers

It is apparent that our students are not as successful in using final free modifiers as college students. It is also obvious that our students use more openers (or initial free modifiers) than Christensen would consider a mature style.[10] Our students may be writing longer base clauses than is appropriate for the sentence system, but their T-Unit length is fairly close to the students in the Gebhard study. As discussed previously, we may need to expend a more concerted effort on the sntence-level skills, particularly emphasizing the practice of using closers.

> Question#4: Do the number of parallel structures per 300 words increase by grade? Do faulty parallel structures decrease?

The school mean for use of parallelisms first year is 6.00, fall and 5.7, spring. The number ranges from a 4.5 (fall, 10th) to an 8.9 (fall, 11th). This jump is easy to explain because the tenth-grade curriculum puts a great deal of emphasis on the use of parallel structures. Eighth graders' use of parallelism is high (5.4, fall and 5.2, spring), but, as observed previously, their parallelism is most often two bases combined with a coordinating conjunction: I went to the store, and I bought a candy bar.

Eighth graders have a low number of faulty parallelisms (0.0, fall and 0.3, spring). In fact, faulty parallelism for the entire student body is not very high first year, ranging from 0.1 to 0.5 with the highest number occurring spring, ninth grade (before they have had intensive instruction).

The use of parallelism the second year does not show similar spurts; as a result the range between high and low isn't as significant as the first year. (Total school mean: 4.63, fall; 4.75 spring.) The highest number of parallelism occurs fall, eleventh grade with a 5.60, spring, and twelfth grade, spring, with a 5.66. The range in faulty parallelism for the whole school is .48 fall and .19 spring.

> Question #5: Do sentence errors (fragments, comma splices, run-ons, and weak signals) decrease by age level?

The mean number of sentence fragments is very low, ranging from 0.1 to 0.7, first year, with a whole school mean of 0.2 both terms. The second year we found more fragments, ranging from none to 1.54, with the whole-school mean of .27 in the fall and 1.29 in the spring.

The mean number of comma-splice errors for the total population is 0.4 fall and 0.7 spring. Eighth and tenth graders had a mean of one comma splice per essay (fall, spring, or both). In the second year study, the range for the total school was .80 fall and .13 spring, with the highest number occurring ninth grade (1.02), fall.

The mean number of run-ons for the total school population was .3 fall and spring. Second year it was .38 and .27. The mean number of weak signals first year was .3 fall and .1 spring. Second year the mean was .16 and .33, so we see no appreciable change between first and second year in the student's run-on sentences and weak signals.

The kinds of sentence errors we looked for do not pose a major problem for University High School students, even in writing an impromptu paper. The sentence base lessons provide students with useful skills in sentence-structure. However, we shouldn't discount our teachers' diligent paper-grading with follow-up instruction whenever papers are returned to students. This process makes students aware of their own problems and helps them to improve. Unfortunately, we have seen too many English classes where this process does not occur; papers are often returned to students with only a grade and with no follow-up instruction on ways to improve.

DISCUSSION

We are not satisfied with our students' use of free modifiers, particularly in their use of closers. Perhaps they are too young to develop sylistically more than they presently have. Our seniors (with a mean age of 16) compare favorably with college students in the other sntence skills, so perhaps we shouldn't be too disappointed in their failure to use as many closers as college-level students. Since we put so much emphasis on the essay-level skills, we do not have a lot of extra time for sentence drill, something that may be necessary to get an improvement in number of closers.

Christensen believes that "two classes of structures" -- free modifiers and intra-T-Unit coordination should be taught to school children. He also believes that research is needed "to determine the points in a spiraling curriculum where they can be introduced and how they can best be taught" (Notes, 149). Perhaps this study will show other schools how and where Christensen's system can be taught in order to improve syntax-level skills. This study may also show weaknesses in the implementation of the system. Teaching syntax-skills is not as appealing as teaching essay-level skills because it takes drill and practice. This study shows where intensive work is necessary to achieve all the objectives of such a system.

END NOTES
Chapter 6

1. We will discuss our methods for counting T-Units when we discuss the *sentence base* because they interrelate (see pp. 124).

2. We classify verbs *active* and *passive* according to definitions of *predication*. In *Understanding Grammar*, Paul Roberts calls an *action verb* a *predicating verb* (462). He further defines it as "A verb which makes the chief statement about a subject, as distinguished from a *linking verb*..." (517). A.M. Tibbetts, in his discussion, clarifies the situation further by classifying *predication* into four kinds: *action*, *is*, *passive*, and *expletive* (15). We count the predication patterns of S-V and S-V-O *active*; and S-PV *passive* to get the percentage of *active* and *passive* in this study.

3. James Howard Wynne in his sampling study found that small samples of T-Units correlate in the .80's and .90's. He suggests that the first twenty T-Units or first twenty sentences are enough to get a reliable picture of the T-Unit length and T-Units per sentence. However, he didn't say whether this was enough to get a valid reading on other counts like sentence types.

4. Stephen E. Witte and Anne S. Davis, in their research on stability of the T-Unit hypothized that "stability or instability of mean T-Unit length may be a function of the general ability level of the group investigated or a function of the amount and intensity of the subjects' previous writing experience" (82). Perhaps this explains why the T-Unit length of our students is stable: they are a homogeneous high-ability group, and they have had intensive writing instruction and practice.

5. Many other researchers have counted the mean number of words in T-Units, particularly after teaching sentence combining. The group means often range from a mean T-Unit length of 9.63 to 16.31, depending upon the grade level. Rather than compare our students with those in the sentence combining studies, we chose to compare our students with high-ability students, some with sentence combining instruction, some with the Christensen method. The Christensen system is not a typical sentence combining program although certain elements of sentence combining are in the program.

6. What Hunt means by "maturity" may not be what the reader expects: "In this study the 'maturity' is intended to designate nothing more than 'the observed characteristics of writers in an older grade'. It has nothing to do with whether older students write 'better' in any general stylistic sense" 1965, 5 xx).

7. Christensen actually misinterpreted Hunt's description of "syntactic maturity" to mean "mature style."

8. Most of these studies have been based on fluctuation of number of words in T-Unit, particularly as they are related to quality or discourse mode.

9. For a succinct description of this program using the Christensen sentence-base system, see Broadhead and Berlin's article. Their program for college students parallels almost exactly what we do with high school students, grades 8-12.

10. It would be interesting to do a follow-up on this study to see if our graduates write more closers in their college writing than they did as high school students.

WORKS CITED
Chapter 6

Blount, N.S., S.L. Johnson, and W.C. Frederick. "A Comparison of the Writing of Eighth- and Twelfth-Grade Students." Technical Report 78. Madison, WI: U. of Wisconsin, Research and Development Center for Cognitive Learning, 1968. (ERIC, ED 035 652)

Boradhead, Glenn J. and James A. Berlin. "Twelve Steps in Using Generative Sentences and Sentence Combining in the Composition Classroom." CCC Journal 32 (1981): 295-307.

Christensen, Francis. The Christensen Rhetoric Program. New York, NY: Harper, 1968.

---. and Bonnijean Christensen. Notes Toward a New Rhetoric, 2nd Ed. New York, NY: Harper, 1978.

Daiute, Colette A. "Performance Limits on Writers". New Directions in Composition Research. Ed. Richard Beach and Lillian S. Bridwell. New York, NY: Guilford, 1984.

Faigley, Lester. "The Influence of Generative Rhetoric on the Syntactic Maturity and Writing Effectiveness of College Freshmen". Research in the Teaching of English 13 (1979): 197-206.

Gebhard, Ann O. "Writing Quality and Syntax". Research in the Teaching of English 12 (1978): 211-231.

Hunt, Kellogg. "Early Blooming and Late Blooming Syntactic Structures". Evaluating Writing: Describing, Measuring, Judging. Ed. Charles R. Cooper and Lee Odell. Urbana, IL: NCTE, 1977.

---. Grammatical Structures Written at Three Grade Levels. Research Report #3. Urbana, IL: NCTE, 1965.

---. "Syntactic Maturity in Schoolchildren and Adults". Monographs of the Society for Research in Child Development. 1970, 35 (Serial no. 134)

Loban, W. Language Development: Kindergarten Through Grade Twelve. Research Report #18. Urbana, IL: NCTE, 1976.

O'Donnell, Roy C., William J. Griffin, and Raymond C. Norris. Syntax of Kindergarten and Elementary School Children: A Transformational Analysis. Urbana, IL: NCTE, 1967.

Roberts, Paul. English Sentences. New York, NY: Harcourt, 1962.

Stewart, Murray F. "Syntactic Maturity from High School to University: A First Look". *Research in the Teaching of English* 12 (1978): 37-46.

Tibbetts, A.M. *Working Papers: A Teacher's Observations on Composition*. Glenview, IL: Scott, 1982.

Witte, Stephen P. and Anne S. Davis. "The Stability of T-Unit Length in the Written Discourse of College Freshmen: A Second Study". *Research in the Teaching of English* 16 (1982): 71-84.

Wolk, Anthony. "The Relative Importance of the Final Free Modifier: A Quantitative Analysis". *Research in the Teaching of English* 4 (Spring 1970): 59-68.

Wynne, James Howard. "Determining the Internal Consistency of English Compositions Using Selected Criteria". DAI 38 (1977) 3347A. Louisiana State U.

PART IV: CONCLUSION

CHAPTER 7*

Correlations -- Both Years

In the previous chapters, we have seen how the group means have changed from fall to spring each year, usually for the better. However, to test how strong the progress of individual cases is in the study, a correlation matrix was made between the following measures:

1. Self Evaluation (SEVAL) -- student perception of ability -- fall to spring.
2. Definition of Terms (DT) -- fall to spring
3. Analytic Score of Essay (ANA) -- fall to spring
4. SEVAL and DT -- all terms
5. SEVAL and ANA -- all terms
6. DT and ANA -- all terms

In the following discussion we refer to Table 20, but consider only those correlations significant at the .001 level.

SELF EVALUATION (SEVAL) -- FALL TO SPRING

The first year, the self evaluations (for the total group) show a correlation fall and spring (.41); however, no statistically significant correlation at the .001 level occurs at any grade level for these two measures. Student perception in the fall doesn't necessarily correlate with perception in the spring, first year. During the course of the year, confidence grows, but no radical changes occur in individual cases between fall and spring. In the second year of the study, a correlation of .61 occurs for the total group. We see a higher correlation at the eleventh and twelfth grades than we saw from the first year's data. The eleventh grader's self evaluation correlates at .53 and twelfth graders' at .78. In the second year of the study, the upper-level students do not change as much in their perceptions fall and spring as the younger students do. Perhaps the older students are becoming more aware of their competence in the composition skills as a result of the self evaluation.

---

*See Appendix III for correlations - Table 20

DEFINITIONS OF TERMS (DT) -- FALL TO SPRING

The definitions of terms (first year data) correlate fall and spring (.25) for the total student body. In the second year, the correlation is higher at .76. As would be expected, no significant correlation exists at the eighth grade because they hadn't been introduced to the terminology in the fall. Only at the ninth grade do we see a statistically significant correlation between the definitions written in the fall and the definitions written in the spring, both years. The second year of the study, the correlations for eleventh and twelfth grades are high (.73 and .69). These correlations support what we have learned from other analysis of the data: upper-level students improved in their definitions second year, perhaps because they were intrigued and started to pay closer attention. We know that in some instances, they actually made an effort to learn the definitions by talking to other students or their teachers.

ANALYTIC SCORE (ANA) -- FALL TO SPRING

No single grade level shows a statistically significant correlation between these scores. At the 9th and 10th grades, negative correlations exist. The second year's data shows a higher correlation (.40) for the total population, but the data for individual classes has no significant correlation, showing that it is not possible to predict on the basis of the fall papers how the individual students will perform on the spring papers. Therefore, any improvement in writing the essay must be a result of instruction, maturity, or topic, but not the result of chance. We would expect a somewhat higher correlation the second year since the students were adapting to the challenge of writing impromptu papers.

CORRELATIONS BETWEEN SELF EVALUATION (SEVAL) AND DEFINITIONS OF TERMS (DT)

Except for one relationship (fall SEVAL and spring DT, first year) the correlations for the total student body are statistically significant. Especially significant are the fall SEVAL and fall DT scores both years.

SEVAL Fall to DT Fall

A high correlation between these measures occurs both years (.61 and .67). The correlation is high enough to conjecture that knowledge of a term, with the corresponding ability to define it seems to be correlated with confidence, particularly in the fall terms. It is logical that students, particularly the younger ones, would be unsure of their abilities when they enter school in the fall, so their perception would correlate with their ability to define. In every case, however, the correlations are higher at the individual grade level, indicating that the students were becoming aware of the definitions of terms, consequently feeling more sure of themselves.

SEVAL Spring to DT Fall

Both years a correlation exists between these two measures (.41 and .63). We see no correlation in the individual grades higher than .48, and only that in the eleventh grade. Not as much change in perception with corresponding ability to write definitions occurs at the upper grades between fall and spring.

SEVAL Spring to DT Spring

Even though these measures correlate in the spring (total student body), they are not particularly high, especially the first year (.34 and .54). The eighth graders are the only ones who show a significant correlation spring to spring with a .54. They have learned a lot of the terminology their first year, so they are getting a more accurate picture of their abilities.

SEVAL Fall to DT Spring

No significant correlation occurs between these measures the first year (.05), but the second year a correlation of .41 exists.

It stands to reason that the students wouldn't have an accurate picture of their abilities first year fall that would correlate with their ability to define the terms in the spring. Lots of instruction goes on during the year. Test bias probably caused the higher correlation the second year.

DISCUSSION

The students' self-evaluation correlates higher with their knowledge in the fall than at any other semester, particularly the eighth and ninth graders second year, and ninth-graders both years. The older students' perception and knowledge correlate best between fall and spring, second year. In fact, more correlations occur between all terms second year than the first.

The correlations may show that it is impossible to predict what students will say they can do in the spring, based on what they say they can do in the fall. This is particularly true at the eight grade.[1]

CORRELATIONS BETWEEN ANALYTIC SCORE (ANA) AND SELF EVALUATION (SEVAL)

All of the correlations between these two measures are significant statistically; however, only one (SEVAL, fall and ANA, fall) is high. Beyond that, the correlations are lower and of little value in predicting what the students will do, based on how they evaluate their skills.

SEVAL Fall to ANA Fall

We see a correlation between the total student body's perception of their abilities and the analytic score on the essay, both fall terms (.61 and .45). However, no significant correlation occurs at any grade level. From these correlations, we can predict that, for the total student body, particularly the first year, there is a correlation between students' self evaluation and their performance on the essay, but we can't make a similar prediction for the individual classes. One exception exists: at the twelfth grade these two measures correlate at .52 and .51 both years. Seniors have a more accurate picture of their abilities than the other students in the school.

SEVAL Fall to ANA Spring

The correlation between fall and spring first year, even though statistically significant, is low (.24). Supporting this are the negative correlations for grades 8, 9, and 11. In the second year, the correlation is somewhat higher (.39). How students evaluate themselves in the fall doesn't correlate with how well they will do on the spring essay.

SEVAL Spring to ANA Spring

The correlation in the spring is lower first year than second even though statistically significant (.34 and .49). Negative correlations occur at the eighth and tenth grades, second year.

SEVAL Spring and ANA Fall

The first year the correlation is .28, the second .50. A negative correlation occurs at the eighth grade both years, and the ninth and tenth grades first year.

DISCUSSION

Even though both years show correlations between the analytic score and self-evaluation for the total student body every term, as we look at the individual grades, the students are not particularly accurate in their perceptions when matched against their performance on the essay. Apparently some students think they can do better work than they do and vice versa. We would expect the younger students to evaluate themselves inaccurately, so we aren't surprised to see negative or low correlations in those grades.

CORRELATIONS BETWEEN ANALYTIC SCORE (ANA) AND DEFINITION TEST (DT)

All first-year correlations between these measures are below .50 with one negative correlation of -.06 (ANA fall with DT spring), so they are not very valuable for group prediction. Second year correlations are somewhat higher ranging from .47 to .59.

ANA Fall to DT Fall

We see a similar pattern in correlating these two measures: a statistically significant correlation both years for the total population (.48 and .51), but not for individual grades. Eighth-graders have a negative correlation between their definitions and their performance on the essay.

ANA Fall to DT Spring

A negative correlation of -.06 occurs the first year between these measures, showing no correlation between students' performance and their definitions from fall to spring. No test bias has entered into the experiment, so the students did not see any relationship between the essay and the definitions of terms first year. This is supported by the fact that the eighth and tenth graders show a negative correlation, first year. The second year, the total population shows a correlation of .47 between these measures, showing that they were learning the definitions and perhaps seeing some relationship between the terminology and the impromptu essay.

ANA Spring to DT Spring

In the spring, first year, a low correlation exists between these measures (.24) with the eighth graders having a negative correlation both years. Second year, the correlation is somewhat higher at .49, but no individual class shows a high correlation between these measures.

ANA Spring to DT Fall

The first year correlation is .33 with a .59 correlation for the second year. No grade has a high correlation for these two variables. We cannot predict from the fall definitions of terms how the students will perform on the essay in the spring.

DISCUSSION

Since the students improved in writing definitions the second year, we are not surprised to see a high correlation between these measures than we see the first year. It isn't surprising that negative correlations occur at the 8th grade level when they are learning the terminology for the first time, and they are also learning a new way of dealing with composition.

END NOTES
CHAPTER 7

1. In the spring, second year, we administered the Daly Writing Apprehension Instrument. We found that the total student body had a mean writing apprehension score of 91.78 (SD 14.68) with seniors ranking 91.03 (SD 13.86). This is considerably higher than the 79.28 mean (SD 18.86) in Daly's sample of college students (246). When you consider that we are comparing writing apprehension scores of boys and girls grades 8 - 12 with college students, it appears that our students are comparatively free from writing apprehension. See University High School's writing apprehension scores below.

ATTITUDE TOWARD WRITING

Group	(Number)	Mean	Standard Deviation	Minimum Score	Maximum Score
Total	(211)	91.78	14.68	43	125
8th	(48)	91.48	14.27	62	123
9th	(49)	92.00	16.21	43	116
10th	(43)	89.65	16.24	43	116
11th	(39)	92.36	15.05	56	125
12th	(32)	94.03	13.86	66	119
**Daly's Sample		79.28	18.86	--	--

*Possible maximum score (Example)

all 13 positive items strongly agree = 13 x 5 = 65
all 13 negative items strongly disagree = 13 x 1 = 13

Norm Score
Total = 78 + 65 - 13 = 130

WORKS CITED
CHAPTER 7

Daly, John A. and Michael D. Miller. "The Empirical Development of An Instrument to Measure Writing Apprehension." Research in the Teaching of English. 9 (Winter, 1975): 242-249.

CHAPTER 8

WHAT WE HAVE LEARNED

We have learned some new things and affirmed a few others from this study. We hope that what we have learned will help us and others to be better teachers of composition. (Other conclusions are embedded in the discussion of various aspects of this research, so it isn't necessary to repeat them here.)

1. Developing competent writers requires an articulated curriculum, preferably grades 8 - 12. The teachers should believe in the curriculum and be willing to follow it. The curriculum should use a terminology that is constantly reinforced and the objectives should be clear to the students and the teachers. Our study shows that, in spite of our efforts to meet these conditions, there have been places in our curriculum where teacher inconsistency has confused students, perhaps causing them to be less confident than they might have been under ideal circumstances. We have also seen how students get easily confused and lose confidence if the expectations change along the way, particularly in the lower grades. Students should be adequately prepared for shifts in objectives as they progress through a program.

2. If a school or an English Department wants its students to be competent writers, it must accept the fact that the process will take a great deal of time and

repetition of certain composing skills. It took three years of instruction for the students to become proficient in writing essays, using the illustration mode. English Departments who expect proficiency after a short unit with no follow-up or repetition will be disappointed.

Repetition seems to get results. The pre-writing practice, organizational assistance, model imitation, and a practical rhetorical grammar has trained students who match up against other students of their ability and grade level. From the longitudinal study (Appendix I), we see the effects of a sequential curriculum with repetition and reinforcement. Our way of teaching composition is certainly not the only way to train writers, but whatever method a school or department chooses, repetition and reinforcement of composing and syntax skills seems to work. We have also seen how the lack of repetition in some instances has caused students to feel less secure about their abilities.

3. Developing competent writers takes a concerted effort on the part of the students, teachers, parents, and administration. At University High School we have the cooperation of all these groups, including the teachers in other disciplines. All of these groups have supported our efforts to teach the craft of writing, support that not every teacher of writing is fortunate enough to have. Our classes have been restricted to an

average of 20 to 25 students per class, making it possible for us to use classtime for individual conferences and one-on-one teaching. We have been able to grade the papers carefully because of the low student-teacher radio. Teachers in other disciplines have expected the students to write essays and essay tests. The parents have exerted pressure on their children to do the homework and read the literature assigned.

4. Developing competent writers requires high standards. At every step of the process the product should be evaluated with plenty of feedback and constructive criticism. This requires diligent, courageous teachers who apply constant pressure to get students to do their best work. Teachers cannot be intimidated by parents, students, or the administration to give better grades than the papers deserve. University High School English teachers are committed to excellence, expecting the best from their students. When they don't get the best, the paper's grade reflects that fact. The teachers aren't afraid to be firm and maintain high standards.

5. Not all students progress at the same rate. Teaching boys and girls how to write is a difficult task at best. Having homogeneously grouped students makes it somewhat easier, but it is apparent from this research that not all children -- even when homogeneously-

grouped -- learn at the same rate and become proficient at the same grade level. We see how some younger students wrote essays that fulfilled the requirements better than some of the older students. We also observed some of the younger students making better use of the sentence base grammar than some of the older students. The variation in proficiency will be greater in hereteogenously-grouped classes. However, this research may show teachers that their situation is not unusual.

6. Even students who are homogeneously grouped and trained in a well-articulated composition program, will not write well all the time. Some of our students took the writing tasks for this research much more seriously than others. We saw students who usually write very well turn out carelessly conceived papers for this project. On the other hand, we were pleased to see that a few students, who ordinarily have serious problems with their essays, were able to follow the model and receive high scores in this project. The assignments may have interested some students more than others; consequently, they performed better. Whatever the explanation, this research tells us that teachers should evaluate each assignment separately and not stereotype their students on the basis of too few samples. Students must also accept the fact that every writing assignment is a new challenge, and they may not succeed at every writing task.

We realize that University High School is not a typical school. We have a small school and small staff, so that control over the curriculum and teaching is possible. In larger schools, with a much broader instructional base, one core curriculum is impossible. But we hope that some of what we have learned will be of use to composition teachers and that they will take the best of what we report here and apply it to their own situation.

APPENDIX I

APPENDIX I

LONGITUDINAL STUDY

From the analysis of the data, described in CHAPTERS 3-6 we have an encouraging picture of the progress of our students. However, we believed that we could get a more accurate picture of the longitudinal effect of the curriculum if we analyzed the data of only those students who had been enrolled in the program for both years of the study or who had finished all four semesters. For instance, the seniors of the first year and the eighth graders of the second-year were not included in the longitudinal study. The data of this select group was analyzed to determine the longitudinal effect of the curriculum, applying an F-Test, and semester and grade interaction test to the data.

SUBJECTS

One hundred forty-two students participated in the self evaluation test all four semesters:

> Thirty-seven students who were eighth graders (1982-83) and ninth graders (1983-84);
> Forty students who were ninth graders (1982-83) and tenth graders (1983-84);
> Thirty-five students who were tenth graders (1982-83) and eleventh graders (1983-84; and
> Thirty students who were eleventh graders (1982-83) and twelfth graders (1983-84).

(In this discussion, these students will be referred to by the grades they have completed during the time span of the project. For instance, the first group will be referred to as 8/9th graders, the second group will be referred to as 9/10th graders, etc. This will show that the students have had a two-year sequence and it will help relate to the discussion in the previous chapters where we refer to groups by grade level.)

SELF-EVALUATION

For the students who had completed four semesters of the curriculum, we found a statistically significant improvement over the four semesters in their perception of ability to perform all the composition skills, particularly the following:

Thesis
Evidence
Opener
Interrupter
Closer
Parallelism

The improvement in all skills -- essay- and syntax-level -- for the total student population, was statistically significant at the .001 level (see Appendix III, Tables 1 and 2).

TABLE 1
STUDENT SELF EVALUATION : LONGITUDINAL STUDY
Four Semester Comparison for Same Students

	Semester Mean				F	P > F
	1st	2nd	3rd	4th		
Thesis	3.37	3.79	3.32	3.80	26.40	.0001***
Organization	3.56	3.66	3.65	3.67	1.35	.2564 (NS)
Topic	3.57	3.67	3.60	3.67	1.27	.2818 (NS)
Paragraph	3.65	3.55	3.57	3.62	1.04	.3739 (NS)
Evidence	3.45	3.67	3.46	3.69	7.04	.0001***
Introduction	3.54	3.63	3.58	3.73	3.95	.0083**
Conclusion	3.42	3.42	3.43	3.50	0.85	.4707 (NS)
Opener	2.89	3.73	3.28	3.46	25.59	.0001***
Interrupter	2.81	3.76	3.26	3.39	28.64	.0001***
Closer	2.66	3.64	3.22	3.35	31.70	.0001***
Sentence Variety	3.27	3.48	3.37	3.47	3.03	.0283*
Signal	2.84	2.64	2.57	2.64	1.84	.1362 (NS)
Parallelism	2.00	2.46	2.33	2.82	15.50	.0001***
Total (Mean)	41.01	45.08	42.70	44.81	51.40	.0001***

* Significant at Alpha = .05 level
** Significant at Alpha = .01 level
*** Significant at Alpha = .001 level

Applying an F-Test to the self-evaluation data, we find that the second-year scores are significantly higher than the first-year scores, except for the 11/12th grade group, where no difference between first year and second year occurs. This supports what we learned from the T-Value analysis of all the students (grades 8 - 12) both years. At the eleventh and twelfth grades, student confidence stabilizes. However, their scores are high: 46.7 out of a total 52, so the students have a reasonably high perception of their ability.

TABLE 2
DIFFERENCES BETWEEN 1ST YEAR AND 2ND YEAR

	Total	8/9th	9/10th	10/11th	11/12th
Year mean: 1st Year	42.3	38.0	40.7	45.0	46.7
2nd Year	46.3	44.5	46.1	48.2	46.7
F Value	102.3	58.7	50.8	16.6	0
PR > F	.0001	.0001	.0001	.0001	1.0 (NS)

(Maximum Score = 52)

According to semester contrast (using multivariate statistics) the second-semester scores are generally significantly higher than first-semester scores. Fourth-semester scores are, in the main, higher than third-semester scores. But the differences between second- and third-semester scores are not significant, perhaps because those semesters have a summer vacation intervening.

TABLE 3
DIFFERENCES BETWEEN FOUR CONSECUTIVE SEMESTERS

	Total	8/9th	9/10th	10/11th	11/12th
Mean: 1st Semester	39.8	33.8	36.3	43.7	46.2
2nd Semester	44.8	42.1	45.1	46.4	46.7
3rd Semester	45.6	43.5	45.3	47.0	46.7
4th Semester	47.1	45.5	46.9	49.3	47.2
F Value	51.4	28.7	45.5	10.5	.6
PR > F	.0001	.0001	.0001	.001	.56 (NS)

(Maximum Score = 52)

TABLE 4
SEMESTER CONTRAST FOR SELF-EVALUATION SCORES

	Total	8/9th	9/10th	10/11th	11/12th
F Value					
1st & 2nd Semester	79.29	60.1	70.7	6.0	1.75
2nd & 3rd Semester	4.03	4.03	.23	.49	.47
3rd & 4th Semester	15.91	4.53	4.89	15.83	.03
PR > F					
1st & 2nd Semester	.0001	.0001	.0001	.02	.197 NS
2nd & 3rd Semester	.047	.053 NS	.63 NS	.49 NS	.499 NS
3rd & 4th Semester	.0001	.04	.03	.0004	.86 NS

(Maximum Score = 52)

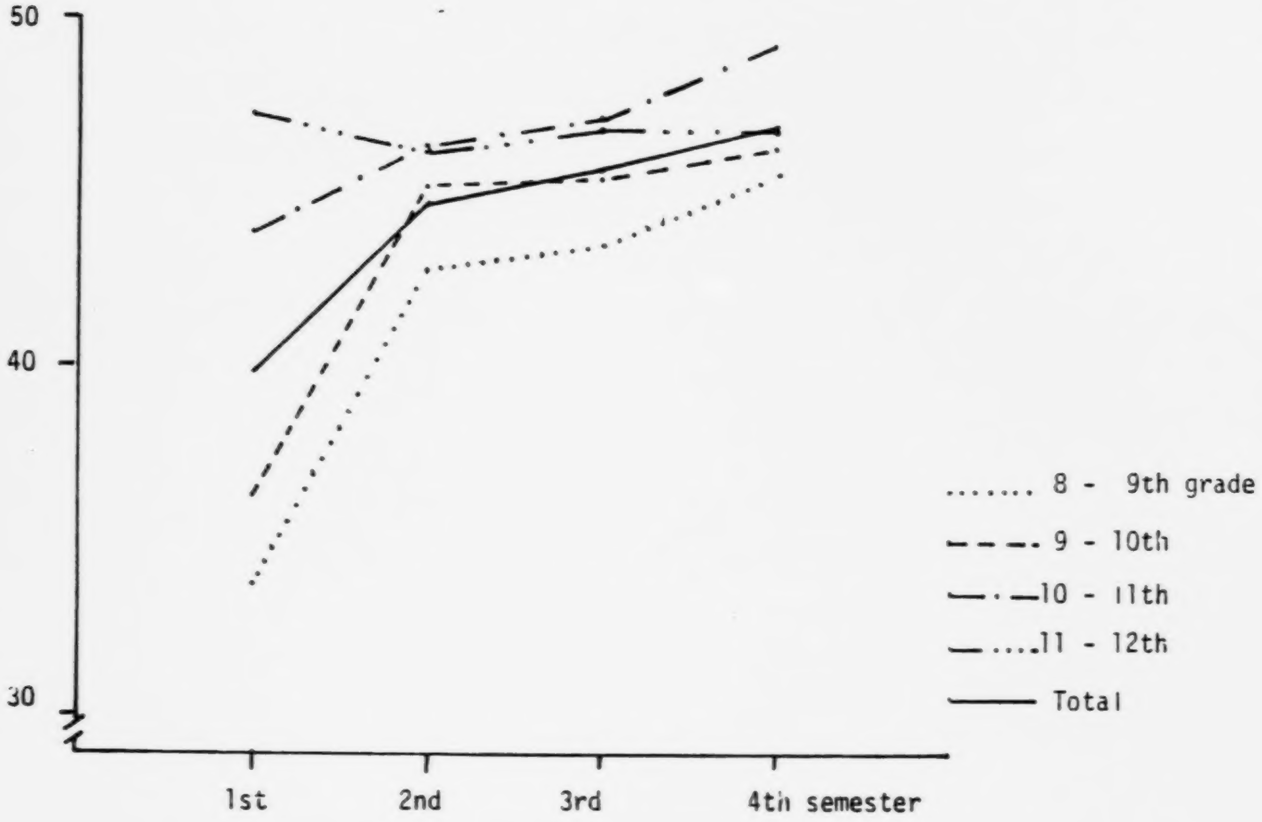
Interaction Effects

There are grade interaction effects in the relationship between semesters and the self-evaluation scores. These interaction effects can be explained by the fact that older students do not get higher scores in the four consecutive semesters and they do not get consistently higher scores than the lower-grade students because they have usually peaked in their performance. In the case of the 8/9th and 9/10th grades, the four consecutive semesters are equally effective, so there is no interaction effect for those grades. At these grades, the point where the instruction is most intense, the students have not been sensitized to the experiment.

TABLE 5
GRADE AND SEMESTER INTERACTION

HOTELLING'S T^2	F VALUE	DF	PR > F
.678	9.62	9.383	.0001

GRAPH 1
SEMESTER AND GRADE INTERACTION FOR
SELF EVALUATION SCORE



DEFINITION TEST

One hundred forty-three students participated in the definition test in the four consecutive semesters:

Thirty-seven 8/9th graders;
Forty-one 9/10th graders;
Thirty-five 10/11th graders; and
Thirty 11/12th graders.

TABLE 6
DIFFERENCES BETWEEN 1ST YEAR AND 2ND YEAR

		Total	8/9th	9/10th	10/11th	11/12th
Year mean:	1st Year	60.4	53.0	61.8	64.1	62.3
	2nd Year	70.2	72.0	73.2	70.6	63.9
F Value		279.2	266.8	123.0	32.2	1.1
PR > F		.0001	.0001	.0001	.0001	.39 (NS)

(Maximum Score = 85)

Lower grade-level students show more improvement than the upper-level students in the definition test. This result is consistent with the results of the self-evaluation data.

According to semester contrast the second-semester scores are generally higher than first-semester scores. But the differences between second- and third-semester scores are not significant. Again, summer loss might account for students' failure to improve. In the 8/9th grade, differences between first and second semesters and differences between second and third semesters are significant, a change that we would expect when children are being introduced to terms for the first time.

TABLE 7
DIFFERENCES BETWEEN FOUR CONSECUTIVE SEMESTERS

	Total	8/9th	9/10th	10/11th	11/12th
Mean: 1st Semester	53.3	43.8	52.7	58.5	59.6
2nd Semester	67.6	64.1	70.9	69.7	61.9
3rd Semester	68.8	70.1	71.7	69.9	65.0
4th Semester	71.6	73.1	74.7	71.3	65.8
F Value	231.5	168.0	91.2	45.7	8.9
PR > F	.0001	.0001	.0001	.0001	.0003

(Maximum Score = 85)

TABLE 8
SEMESTER CONTRAST FOR DEFINITION TEST SCORES

Contrast	1st and 2nd		2nd and 3rd		3rd and 4th	
Grade	F	PR > F	F	PR > F	F	PR > F
8 / 9th	169.5	.0001	28.0	.0001	13.9	.0007
9 / 10th	195.7	.0001	.58	.45 (NS)	11.7	.0015
10 / 11th	83.4	.0001	.00	1.0 (NS)	4.7	.0374
11 / 12th	14.9	.0001	12.0	.0017	10.3	.0033
Total	391.4	.0001	3.2	.078 (NS)	39.27	.0001

Interaction Effects

There are grade interaction effects in the relationship between semesters and definition test scores, but they are not equally effective for each grade level.

GRAPH 2
SEMESTER AND GRADE INTERACTION FOR
DEFINITION TEST SCORES

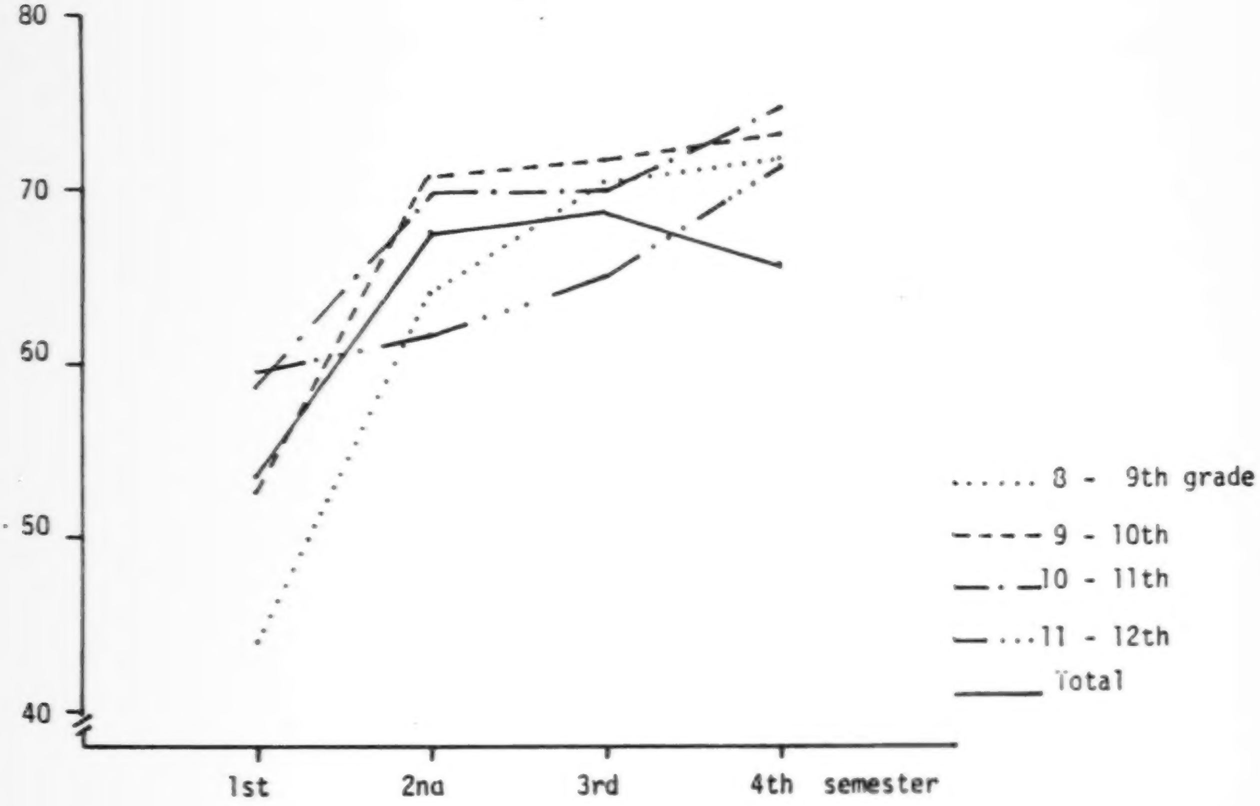


TABLE 9
GRADE AND SEMESTER INTERACTION

HOTELLING'S T^2	F VALUE	DF	PR > F
1.63	23.15	9.383	.0001

ANALYTIC SCORES OF ESSAYS

One hundred forty-six students participated in the analytic test in the four consecutive semesters:

Thirty-eight 8/9th graders;
Forty-two 9/10th graders;
Thirty-five 10/11th graders;and
Thirty-one 11/12th graders.

TABLE 10
DIFFERENCES BETWEEN 1ST YEAR AND 2ND YEAR

	Total	8/9th	9/10th	10/11th	11/12th
Year mean: 1st Year	72.2	52.1	61.4	90.2	87.4
2nd Year	93.3	83.0	101.0	100.3	91.1
F Value	85.1	43.9	104.9	4.2	.5
PR > F	.0001	.0001	.0001	.04	.46 (NS)

(Maximum Score = 125)

The difference between first- and second-year analytic scores is highly significant for the total group and for 8/9th, 9/10th grades. In the 11/12th grades, there is no significant difference between the first year and second year analytic scores. Out of a possible 125 points, a group mean of 95.7 for the 11/12th grade group is high, showing a high retention of skills previously learned, but perhaps receiving no reinforcement in the class.

According to semester contrast, the second-semester scores are generally significantly higher than first-semester scores. The difference between third and fourth semester is significant, but the difference between second and third semester is not. In the 11/12th grade, the difference between consecutive semesters is not statistically significant, supporting our earlier conclusion that when students learn a new skill for the first time, they perform at their best level.

TABLE 11
DIFFERENCES BETWEEN FOUR CONSECUTIVE SEMESTERS

		Total	8/9th	9/10th	10/11th	11/12th
Mean:	**1st Semester**	53.8	26.8	34.2	74.5	90.2
	2nd Semester	90.6	77.4	88.7	106.0	92.0
	3rd Semester	86.1	67.1	98.5	98.0	79.2
	4th Semester	100.5	98.9	103.5	102.7	95.7
F Value		78.5	91.3	86.7	6.9	2.2
PR > F		.0001	.0001	.0001	.0012	.1161 (NS)

(Maximum Score = 125)

TABLE 12
SEMESTER CONTRAST FOR ANALYTIC TEST SCORES

Contrast	1st and 2nd		2nd and 3rd		3rd and 4th	
Grade	F	PR > F	F	PR > F	F	PR > F
8/9th	77.5	.0001	1.34	.25 (NS)	19.61	.0001
9/10th	82.3	.0001	2.2	.14 (NS)	1.38	.25 (NS)
10/11th	21.5	.0001	4.51	.042	1.64	.21 (NS)
11/12th	.34	.57 (NS)	4.4	.045	4.65	.0398
Total	123.8	.0001	4.87	.029	22.97	.0001

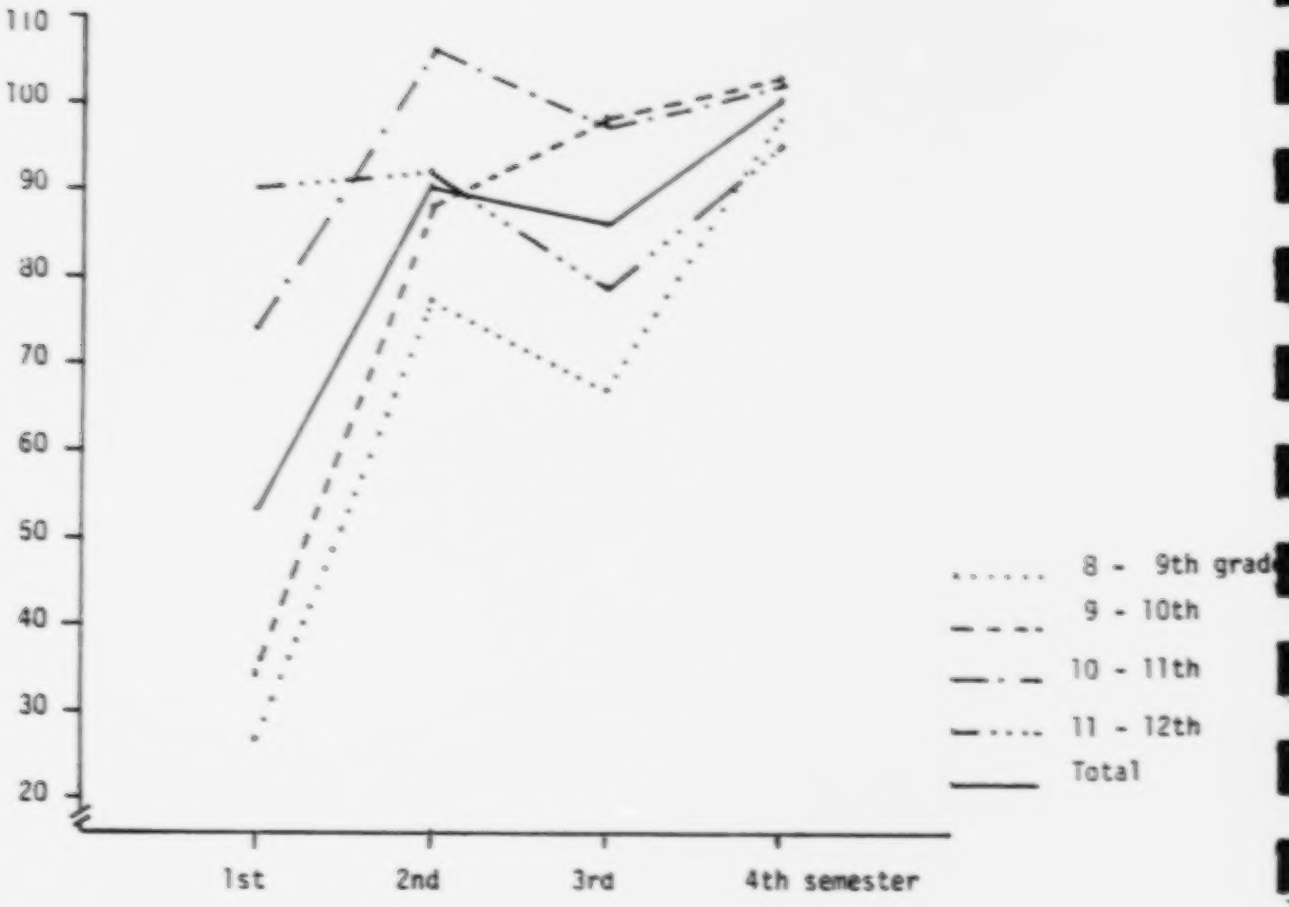
Interaction Effect

The relationship between semester and analytic scores differ, depending upon grade level. The 9/10th grade students continually gained higher scores in each of the four consecutive semesters, at the time when the instruction in the illustration mode is most intense. Students in the 11/12th grades don't show a significant change in their analytic scores during the four consecutive semesters. In all grade levels, there are significant interaction effects in the relationship between analytic scores and semesters.

TABLE 13
GRADE AND SEMESTER INTERACTION

HOTELLING'S T^2	F VALUE	DF	PR > F
.918	13.02	9.383	.0001

GRAPH 3
SEMESTER AND GRADE INTERACTION FOR
ANALYTIC SCORES



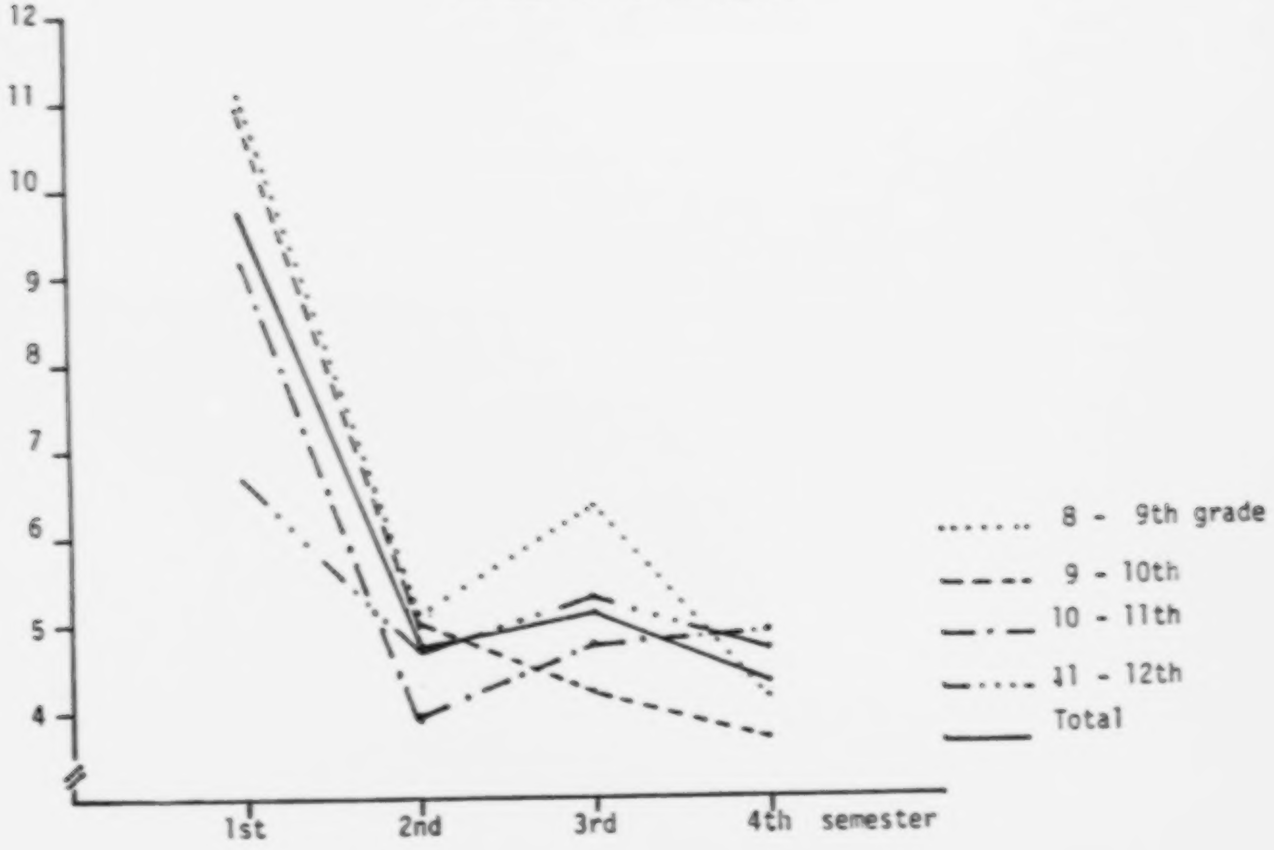
NUMBER OF STRATEGIES

The change in the number of strategies used in the first year versus the second year is significant for all grade levels. Students learned to narrow their organizational plans as they progress in the program.

TABLE 14
LONGITUDINAL STUDY

Number of Strategies		Mean and F Value				
		Total	8/9th	9/10th	10/11th	11/12th
1st Year:	Fall	9.72	11.13	10.98	9.14	6.66
	Spring	4.73	5.09	5.09	3.97	4.70
2nd Year:	Fall	5.14	6.38	4.20	4.78	5.35
	Spring	4.27	4.08	3.63	4.86	4.71
F Value		80.93	32.01	57.56	16.03	1.68
PR > F		.0001	.0001	.0001	.0001	.1752

GRAPH 4
NUMBER OF STRATEGIES



SYNTAX ANALYSIS

Free Modifiers

The change between first and second year in the longitudinal groups' free unit length was significant for openers, but not for interrupters or closers; however, the longitudinal group wrote shorter openers, longer interrupters and closers than the entire student body. This may indicate that at least two years of consistent reinforcement of the principles of the sentence base grammar pays off (see chapter 6).

GRAPH 5
MEAN OPENER LENGTH

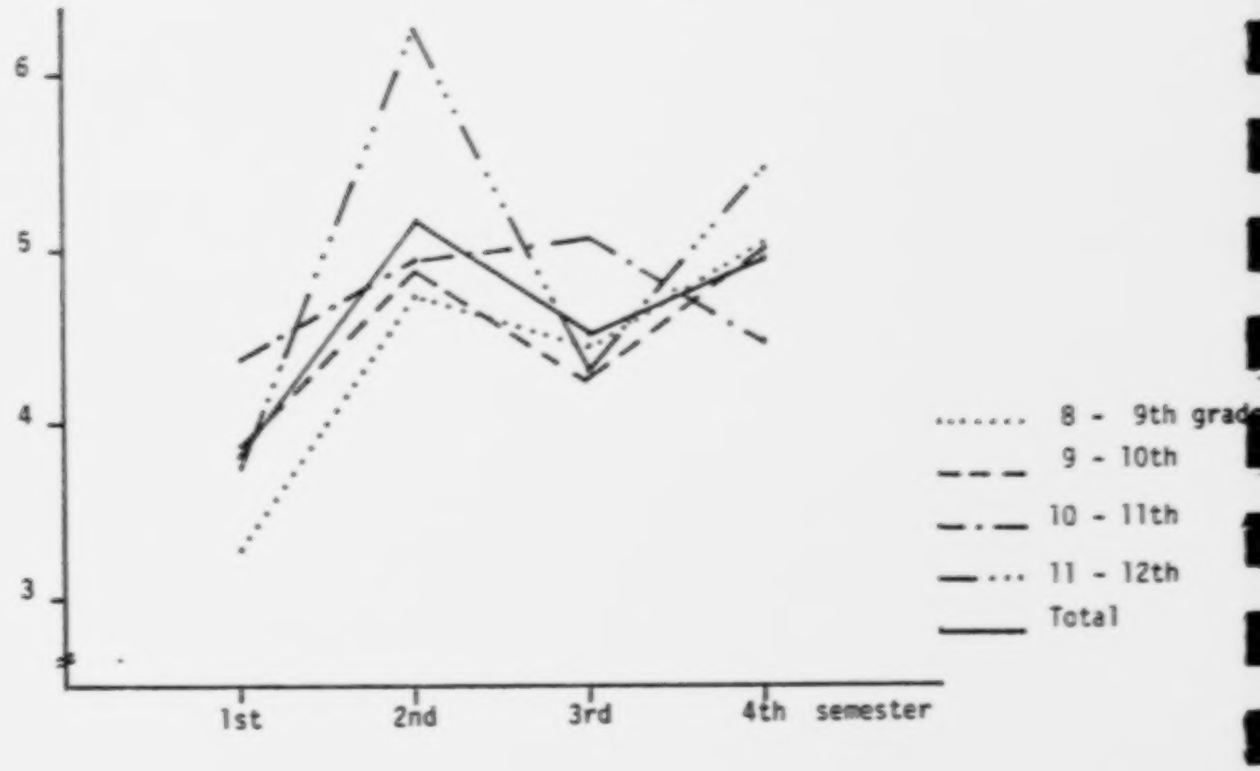


TABLE 15
LONGITUDINAL STUDY

	Mean and F Value				
Mean Opener Length	Total	8/9th	9/10th	10/11th	11/12th
1st Year: Fall	3.81	3.29	3.83	4.36	3.74
Spring	5.15	4.72	4.89	4.92	6.27
2nd Year: Fall	4.50	4.43	4.25	5.06	4.26
Spring	4.98	5.05	5.01	4.49	5.44
F Value	8.47	4.61	3.89	.65	3.23
PR > F	.0001***	.0041**	.0101*	.5836	.0146*

* Significant at Alpha = .05 level
** Significant at Alpha = .01 level
*** Significant at Alpha = .001 level

GRAPH 6
MEAN INTERRUPTER LENGTH

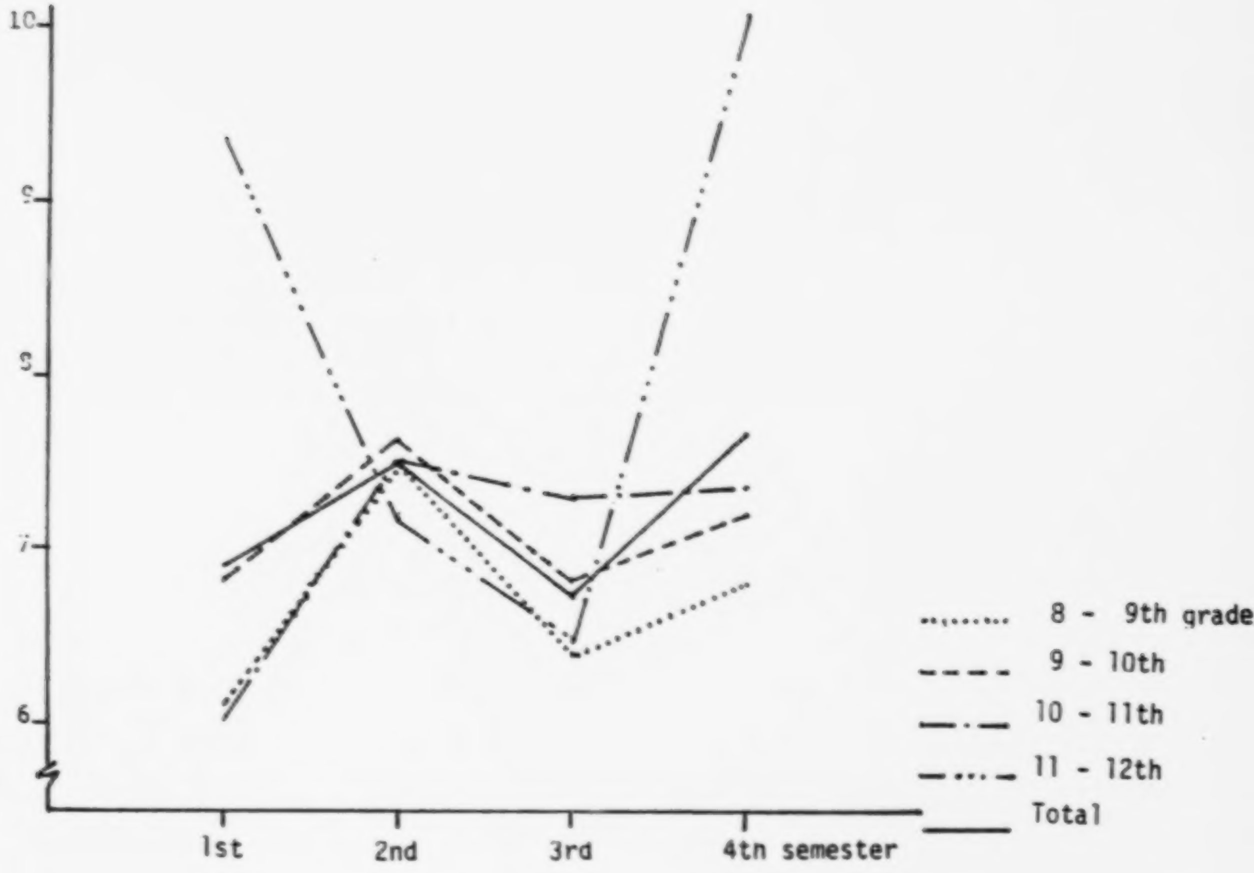


TABLE 16
LONGITUDINAL STUDY

	Mean and F Value				
Mean Interrupter Length	Total	8/9th	9/10th	10/11th	11/12th
1st Year: Fall	6.87	6.11	6.82	6.02	9.34
Spring	7.46	7.48	7.62	7.50	7.19
2nd Year: Fall	6.77	6.40	6.82	7.31	6.46
Spring	7.65	6.81	7.21	7.34	10.08
F Value	1.45	1.14	.40	1.21	2.26
PR > F	.2277	.3350	.7499	.3072	.0863

GRAPH 7
MEAN CLOSER LENGTH

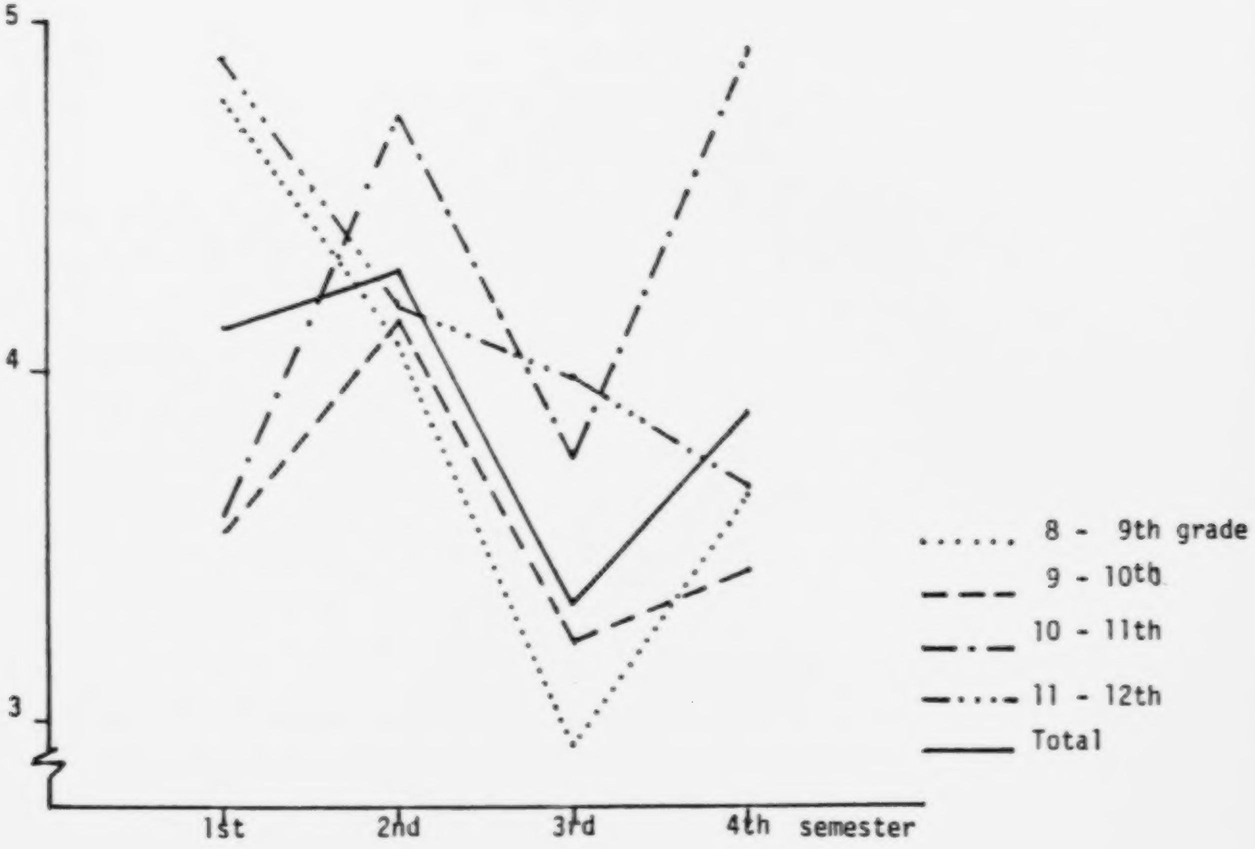


TABLE 17
LONGITUDINAL STUDY

Mean Closer Length	Mean and F Value Total	8/9th	9/10th	10/11th	11/12th
1st Year: Fall	4.12	4.77	3.52	3.59	4.89
Spring	4.28	4.09	4.13	4.72	4.19
2nd Year: Fall	3.33	2.92	3.22	3.75	3.48
Spring	3.89	3.64	3.42	4.92	3.65
F Value	2.42	1.58	.96	1.10	1.95
PR > F	.0655	.1987	.4133	.3508	.1260

The longitudinal study shows a modest increase in T-Unit length between years. The mean T-Unit length of the longitudinal group is significantly higher (17.75) than the T-Unit length for the entire student body, especially spring, second year (14.92).

GRAPH 8
MEAN T-UNIT LENGTH

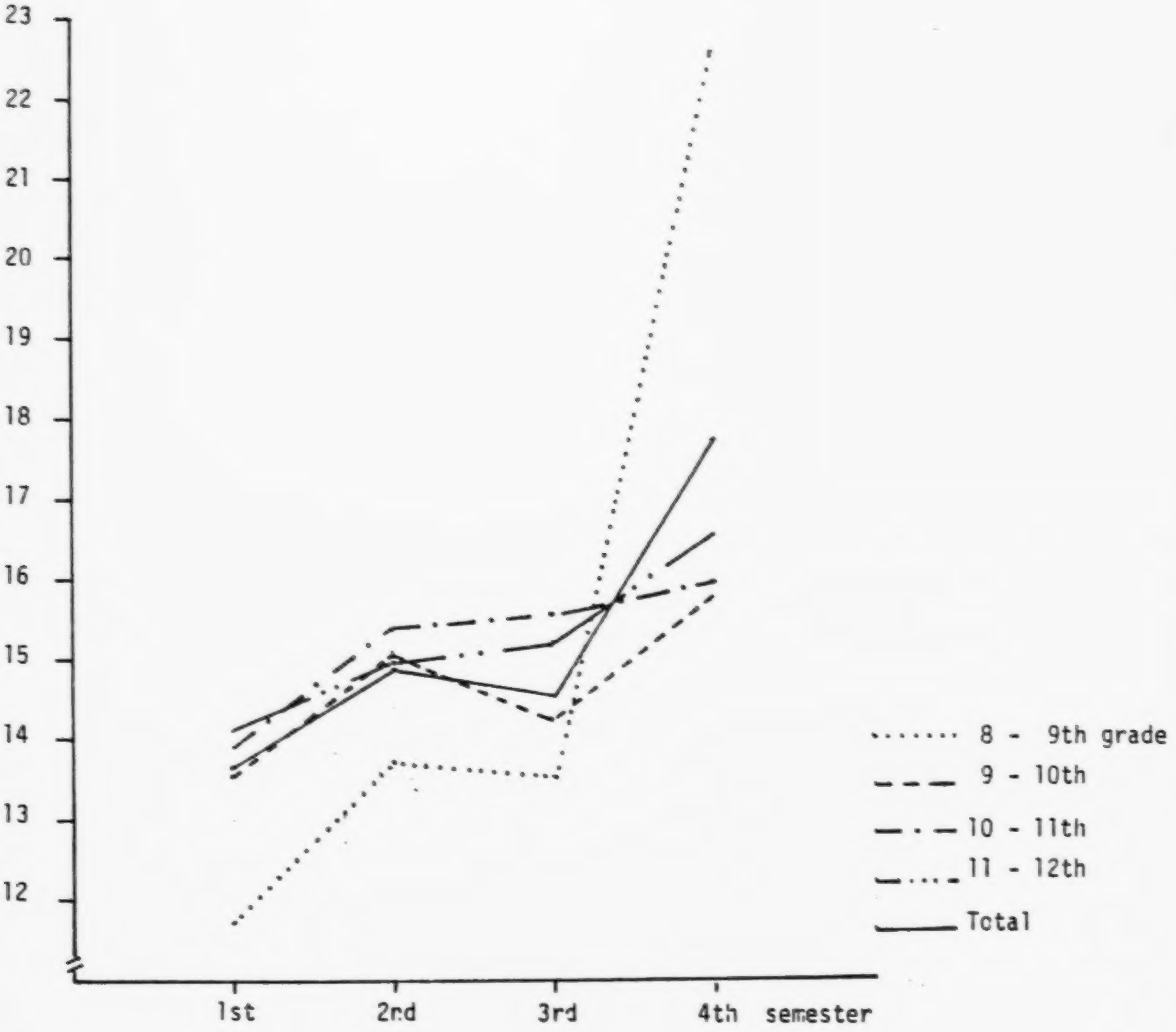


TABLE 18
LONGITUDINAL STUDY

	Mean and F Value				
T-Unit Length	Total	8/9th	9/10th	10/11th	11/12th
1st Year: Fall	13.66	11.73	13.57	13.92	14.12
Spring	14.88	13.70	15.10	15.37	14.98
2nd Year: Fall	14.57	13.56	14.23	15.47	15.20
Spring	17.75	22.57	15.79	15.98	16.49
F Value	4.46	1.90	3.22	3.32	4.21
PR > F	.0041**	.1325	.0242*	.0214*	.0071**

*   Significant at Alpha = .05 level
** Significant at Alpha = .01 level
*** Significant at Alpha = .001 level

Base Length

We see a significant increase in the mean base length (all grades except 10/11) in the longitudinal group. The longitudinal group's mean base length comes closer to the professional writer's mean base length (13.3) than the total student population.

GRAPH 9
MEAN BASE LENGTH

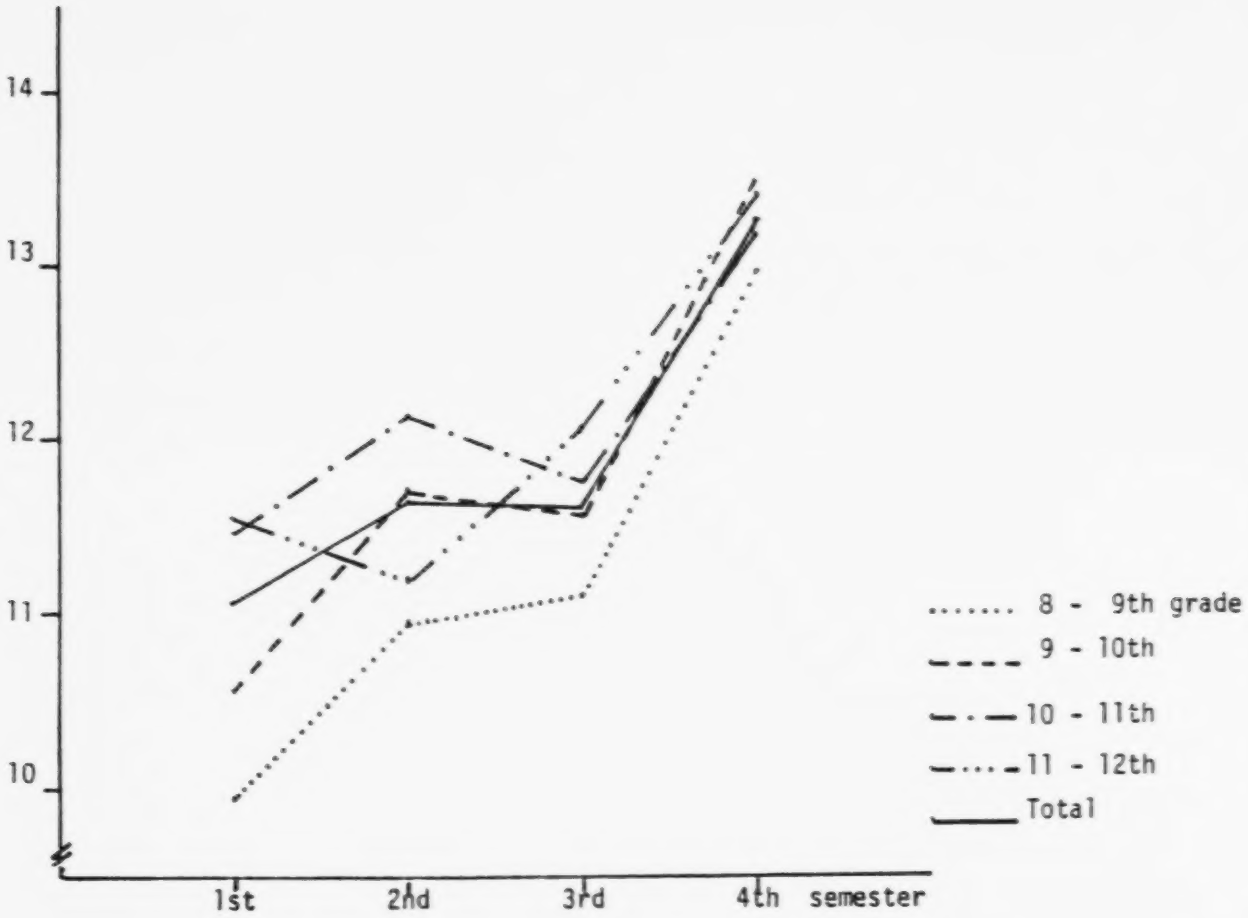


TABLE 19
LONGITUDINAL STUDY

	Mean and F Value				
Base Length	Total	8/9th	9/10th	10/11th	11/12th
1st Year: Fall	11.08	9.97	10.55	11.45	11.56
Spring	11.64	10.94	11.70	12.12	11.20
2nd Year: Fall	11.60	11.10	11.57	11.78	12.06
Spring	13.25	12.96	13.47	13.19	13.43
F Value	31.01	11.73	13.03	3.71	6.55
PR > F	.0001***	.0001***	.0001***	.0129*	.0004***

* Significant at Alpha = .05 level
** Significant at Alpha = .01 level
*** Significant at Alpha = .001 level

APPENDIX II

SIGNIFICANCE TEST PROCEDURE

APPENDIX II
SIGNIFICANCE TEST PROCEDURE
By Young Mok Park

Two kinds of significance tests -- T-Test and F-Test -- were conducted to determine the differences between the scores of each semester. The T-Values and F-Values were generated by using the SAS Computer Program.

1. T-TEST

To determine the semester effects on students' writing skills (fall and spring within each year), a T-Test was conducted using a direct-difference method. It was possible to pair off data from two dependent samples because most of the students took tests twice in both years. The T-Test procedures were as follows:

The Basic Statistical Procedure:

Ho: $\mu_1 - \mu_2 = 0$

if $t > t_{n-1}$ then the hypothesis is rejected

$$\text{where } t = \frac{\bar{d}.}{Sd / n}$$

$$d. = \sum_{i=1}^{n} (X_{i1} - X_{i2})/n = \sum_{i=1}^{n} di/n$$

$d_i = X_{i1} - X_{i2}$ (X_1 = Spring Semester Scores for individual students)

(X_2 = Fall Semester Scores for individual students)

$$s_d = \sum_{i=1}^{n} \frac{(di - \bar{d}.)^2}{n-1}$$

The Data

The T-Test was conducted for the two semester scores (or number) of each year, and each sub-category score for each test. The data analysis scheme is as follows:

(Year)	First Year		Second Year	
(Semester)	Fall	Spring	Fall	Spring
(Variables)	AY1F1 ···	AY1S1 ···	AY2F1 · · ·	AY2S1 · · ·
(Grade); 8th				
9th				
10th				
11th				
12th				
Total:				

Example : AY1F1

A = test name, such as self evaluation or definition test.

Y1 = First Year (Y2 = Second Year)

F = Fall Semester (S = Spring Semester)

1 = First item (or category) of the test.

*T-Test Example: T-Test between AY1F1 and AY1S1, and T-Test between AY2F1 AND AY2S1, for eighth grade students.

2. F-TEST

For the longitudinal study, a repeated measure multi variate analysis of variance method was used because four similar measurements were made on the same students during the four semesters. The significant test procedures are as follows:

Test 1:

To determine the semester effects on scores of the self evaluation test, definition test, and analytic scale, the following hypothesis was tested for each grade and the total group separately.

Ho : $\mu_1 = \mu_2 = \mu_3 = \mu_4$ (The four semester scores are all equal)

Ha : $\mu i = \mu j$ (The four semester scores are unequal for at least one pair)

The above hypothesis is rejected if :

$$F = T^2 \frac{(n-p+1)}{(n-1)\ (p-1)} > F_{p-1,\ n-p+1,\ \alpha}$$

where, $T^2 = N\bar{y}'C'\ (CSC')^{-1}C\bar{y}$

where, N = number of students.

$\bar{y}$ = a mean vector of each semester scores.

$$\text{(eg.)} \qquad \bar{y} = \begin{bmatrix} \bar{y}^1 \\ \bar{y}^2 \\ \bar{y}^3 \\ \bar{y}^4 \end{bmatrix}$$

$\bar{y}'$ = a transpose of $\bar{y}$

(eg.) $\bar{y}' = [\bar{y}^1\ \bar{y}^2\ \bar{y}^3\ \bar{y}^4]$

C = a matrix of contrast.

(eg.) $$C = \begin{bmatrix} 1 & -1 & 0 & 0 \\ 0 & 1 & -1 & 0 \\ 0 & 0 & 1 & -1 \end{bmatrix}$$

S = a covariance matrix of each semester scores.

(eg.) $$\begin{bmatrix} s^{11} & s^{12} & s^{13} & s^{14} \\ s^{21} & s^{22} & s^{23} & s^{24} \\ s^{31} & s^{32} & s^{33} & s^{34} \\ s^{41} & s^{42} & s^{43} & s^{44} \end{bmatrix}$$

Test 2:

To determine the differences between the scores of two consecutive semesters, the following hypotheses were tested using the same statistical procedures as in Test 1:

The population mean scores are the same between:

Ho1 : $\mu^1 = \mu^2$ (1st semester and 2nd semester)

Ho2 : $\mu2 = \mu3$ (2nd semester and 3rd semester)

Ho3 : $\mu3 = \mu4$ (3rd semester and 4th semester)

Test 3:

To determine whether the semester effect is equivalent for all grades (namely, there is no interaction between semester and grade), the following hypotheses were tested for each test score.

$$Ho : C(\mu_1 - \mu_4) = C(\mu_2 - \mu_4) = C(\mu_3 - \mu_4)$$

where C = a (p-1) * p matrix of contrast.

1, 2, 3, 4 = grade level

This hypothesis is rejected if:

$$F = \frac{N-J-P+1}{J-1} \; \frac{(1-U)}{U} > F_{\,J-1,\; N-J-P+1}$$

$$\text{where } U = \frac{|C(SSE)C'|}{|C(SSE + SS(TR)C'|}$$

J=number of grade
P=number of semester

$$SSE = SST - SS(TR)$$

$$SST = \sum_{j=1}^{J} \sum_{k=1}^{Nj} Yjk\,Yjk' - N\bar{Y}..\bar{Y}..'$$

$$SS(TR) = \sum_{j=1}^{J} Yj.Yj.' / Nj - N\bar{Y}..Y..'$$

$$\bar{Y}j = Nj^{-1} \sum_{k=1}^{Nj} Yjk \qquad \bar{Y}.. = N^{-1} \sum_{j=1}^{J} \sum_{k=1}^{Nj} Yjk$$

DESCRIPTIVE STATISTIC

In addition to the T-Values and F-Values the following statistics were generated by using the SAS Program:

- Means and standard deviation of each variable for each group and each semester;
- Frequency distributions of each variable for each group and each semester;
- Correlation between each variable (such as total scores

of the self evaluation test, definition test, and analytic scores) and between each semester. (The missing values were not included in the calculation of correlations.)

APPENDIX III

SUPPORTING TABLES FOR CHAPTERS 3 THROUGH 6

APPENDIX III

TABLE 1
MEANS OF STUDENT'S SELF EVALUATION OF WRITING SKILLS

TOTAL POPULATION (N=208)
FIRST YEAR

Sentence Variety	Mean Fall	Spring	T-Value	Probability (2-tailed)
Thesis	3.37	3.68	-3.91	.000*
Organization	3.55	3.55	0.00	1.000
Topic	3.57	3.56	.13	.898
Paragraph	3.65	3.45	2.75	.006*
Evidence	3.44	3.56	-1.52	.130
Introduction	3.54	3.53	.13	.897
Conclusion	3.42	3.33	1.29	.198
Opener	2.89	3.63	-7.42	.000*
Interrupter	2.79	3.66	-7.96	.000*
Closer	2.64	3.54	-8.52	.000*
Sentence Variety	3.24	3.38	-1.62	.107
Signal	2.83	2.55	2.33	.021*
Parallelism	1.99	2.36	-3.56	.000*
Total (Mean)	3.15	3.37	-4.02	.000*

*P < .05

TABLE 1 (continued)

MEANS OF STUDENT'S SELF EVALUATION OF WRITING SKILLS

TOTAL POPULATION (N=208)
FIRST YEAR

Fall		Spring		Fall		Spring	
Probability				Linearity			
F=44.97	P= .00	F= 2.93	P= .02	F= 5.69	P= .00	F= .75	P= .53
F=53.31	P= .00	F= 3.92	P= .00	F=27.87	P= .00	F= 2.93	P= .03
F= 3.17	P= .01	F= 2.51	P= .04	F= 1.76	P= .16	F= .72	P= .54
F= 1.17	P= .33	F= .83	P= .51	F= .93	P= .43	F= .84	P= .47
F= 1.74	P= .14	F= 3.92	P= .00	F= 1.96	P= .12	F= 5.19	P= .00
F=16.90	P= .00	F= 4.11	P= .00	F=13.76	P= .00	F= 5.04	P= .00
F= 2.84	P= .03	F= 1.18	P= .32	F= 1.36	P= .26	F= 1.49	P= .22
F= .38	P= .82	F= 2.49	P= .04	F= .50	P= .68	F= 3.32	P= .02
F=47.33	P= .00	F= 2.05	P= .09	F=15.66	P= .00	F= 1.21	P= .31
F=69.95	P= .00	F= 2.90	P= .02	F=21.59	P= .00	F= 2.89	P= .03
F=53.04	P= .00	F= 1.02	P= .40	F=17.75	P= .00	F= 1.25	P= .29
F= 6.76	P= .00	F= .68	P= .60	F= 1.40	P= .24	F= .86	P= .46
F=17.30	P= .00	F=11.36	P= .00	F= 1.46	P= .23	F= 7.74	P= .00
F=17.44	P= .00	F=23.01	P= .00	F=11.48	P= .00	F=21.89	P= .00

TABLE 1 (continued)

MEANS OF STUDENT'S SELF EVALUATION OF WRITING SKILLS

8th GRADE (N=41)
FIRST YEAR

Writing Skill	Mean Fall	 Spring	T-Value	Probability (2-tailed)
Thesis	2.10	3.62	-8.41	.000*
Organization	3.29	3.31	-0.11	.914
Topic	3.55	3.36	.92	.365
Paragraph	3.62	3.52	.59	.562
Evidence	2.69	3.45	-4.09	.000*
Introduction	3.24	3.50	-1.48	.147
Conclusion	3.56	3.38	-0.12	.907
Opener	2.12	3.33	-5.74	.000*
Interrupter	1.90	3.33	-6.79	.000*
Closer	1.83	3.33	-7.12	.000*
Sentence Variety	2.83	3.36	-2.19	.034*
Signal	2.12	1.45	2.93	.006*
Parallelism	1.19	1.12	.77	.445
Total (Mean)	2.60	3.08	-3.43	.001*

*P < .05

TABLE 1 (continued)

MEANS OF STUDENT'S SELF EVALUATION OF WRITING SKILLS

9th GRADE (N=46)
FIRST YEAR

Writing Skill	Mean Fall	Spring	T-Value	Probability (2-tailed)
Thesis	3.57	3.53	.30	.767
Organization	3.55	3.55	0.00	1.000*
Topic	3.49	3.62	-0.88	.382
Paragraph	3.60	3.30	1.96	.056
Evidence	3.79	3.77	.11	.914
Introduction	3.57	3.45	.85	.402
Conclusion	3.51	3.25	1.81	.077
Opener	1.72	3.64	-8.83	.000*
Interrupter	1.45	3.83	-13.73	.000*
Closer	1.40	3.62	-11.37	.000*
Sentence Variety	2.98	3.38	-2.20	.033*
Signal	2.26	2.83	-2.51	.016*
Parallelism	1.53	2.32	-3.82	.000*
Total (Mean)	2.80	3.39	-5.77	.000*

*P < .05

TABLE 1 (continued)

MEANS OF STUDENT'S SELF EVALUATION OF WRITING SKILLS

10th GRADE (N=43)
FIRST YEAR

Writing Skill	Mean Fall	 Spring	T-Value	Probability (2-tailed)
Thesis	3.36	3.57	.50	.623
Organization	3.68	3.50	1.14	.263
Topic	3.45	3.59	-0.76	.452
Paragraph	3.70	3.45	1.42	.161
Evidence	3.45	3.23	1.18	.243
Introduction	3.61	3.41	1.32	.193
Conclusion	3.39	3.27	.70	.490
Opener	3.30	3.66	-1.86	.069
Interrupter	3.30	3.59	-1.36	.181
Closer	3.07	3.50	-2.12	.040*
Sentence Variety	3.25	3.30	-0.23	.817
Signal	2.93	2.55	1.48	.145
Parallelism	2.59	3.07	-2.11	.041*
Total (Mean)	3.34	3.36	-0.17	.868

*P < .05

TABLE 1 (continued)

MEANS OF STUDENT'S SELF EVALUATION
OF WRITING SKILLS

11th GRADE (N=37)
FIRST YEAR

Writing Skills	Mean Fall	Mean Spring	T-Value	Probability (2-tailed)
Thesis	3.76	3.84	-0.57	.571
Organization	3.49	3.57	-0.46	.646
Topic	3.73	3.54	1.12	.268
Paragraph	3.49	3.22	1.40	.169
Evidence	3.46	3.46	0.00	1.000
Introduction	3.59	3.57	.12	.905
Conclusion	3.43	3.14	2.14	.039*
Opener	3.89	3.76	1.22	.230
Interrupter	3.18	3.73	.44	.661
Closer	3.68	3.68	0.00	1.000
Sentence Variety	3.65	3.54	.54	.593
Signal	3.43	3.05	1.10	.280
Parallelism	2.68	2.81	-0.51	.611
Total (Mean)	3.54	3.45	.76	.450

*P < .05

TABLE 1 (continued)

MEANS OF STUDENT'S SELF EVALUATION OF WRITING SKILLS

12th GRADE (N=38)
FIRST YEAR

Writing Skills	Mean Fall	Spring	T-Value	Probability (2-tailed)
Thesis	3.82	3.92	-1.67	.103
Organization	3.77	3.87	-0.94	.352
Topic	3.67	3.69	-0.22	.831
Paragraph	3.82	3.77	.50	.623
Evidence	3.77	3.90	-1.40	.168
Introduction	3.67	3.74	-0.77	.446
Conclusion	3.38	3.59	-1.84	.073
Opener	3.72	3.77	-0.34	.736
Interrupter	3.85	3.79	.35	.729
Closer	3.52	3.56	-0.29	.772
Sentence Variety	3.59	3.36	-1.71	.095
Signal	3.59	2.92	2.86	.007*
Parallelism	2.08	2.54	-1.39	.173
Total (Mean)	3.56	3.57	-0.31	.756

*P < .05

TABLE 2

MEANS OF STUDENT'S SELF EVALUATION OF WRITING SKILLS

TOTAL POPULATION (N=228)
SECOND YEAR

	Mean		SD			
Writing Skills	Fall	Spring	Fall	Spring	T	PR > T
Thesis	3.32	3.80	0.98	0.46	6.95	.0001***
Organization	3.65	3.67	0.62	0.59	0.28	.7785
Topic	3.60	3.67	0.67	0.61	1.28	.2009
Paragraph	3.57	3.62	0.68	0.61	1.07	.2879
Evidence	3.46	3.69	0.78	0.52	4.29	.0001***
Introduction	3.58	3.73	0.62	0.53	2.74	.0066**
Conclusion	3.43	3.50	0.62	0.58	1.22	.2230
Opener	3.28	3.46	1.05	.096	2.79	.0058**
Interrupter	3.26	3.39	1.10	1.03	1.95	.0519
Closer	3.22	3.35	1.06	1.04	1.62	.1057
Sentence Variety	3.39	3.47	0.81	0.76	1.56	.1200
Signal	2.57	2.64	1.19	1.22	0.87	.3875
Parallelism	2.33	2.82	1.24	1.25	6.76	.0001**
Total (Mean)	3.28	3.45	0.47	0.43	6.00	.0001***

* Significant at Alpha = .05 level
** Significant at Alpha = .01 level
*** Significant at Alpha - .001 level

TABLE 2 (continued)

MEANS OF STUDENT'S SELF EVALUATION
OF WRITING SKILLS

8th GRADE (N=54)
SECOND YEAR

	Mean		SD			
Writing Skills	Fall	Spring	Fall	Spring	T	PR > T
Thesis	2.04	3.75	0.89	0.48	12.18	.0001
Organization	3.63	3.64	0.68	0.53	0	1.0000
Topic	3.57	3.47	0.72	0.62	-0.67	.5054
Paragraph	3.72	3.49	0.56	0.75	-2.06	.0444*
Evidence	2.98	3.55	1.04	0.64	4.02	.0002***
Introduction	3.44	3.68	0.69	0.64	1.73	.0898
Conclusion	3.50	3.60	0.67	0.53	0.80	.4286
Opener	2.20	2.38	1.19	1.15	1.01	.3170
Interrupter	1.98	2.06	1.11	1.05	0.41	.6808
Closer	2.11	2.06	1.12	1.03	-0.46	.6484
Sentence Variety	3.09	3.26	0.87	1.02	1.00	.3219
Signal	2.94	2.17	1.23	1.30	-4.10	.0001
Parallelism	1.35	1.53	0.80	.97	1.28	.2071
Total (Mean)	2.81	2.97	0.36	0.32	2.63	.0113*

* Significant at Alpha = .05 level
** Significant at Alpha = .01 level
*** Significant at Alpha - .001 level

TABLE 2 (continued)

MEANS OF STUDENT'S SELV EVALUATION OF WRITING SKILLS

9th GRADE (N=54)
SECOND YEAR

	Mean		SD			
Writing Skills	Fall	Spring	Fall	Spring	T	PR > T
Thesis	3.67	3.85	0.75	0.41	1.56	.1239
Organization	3.47	3.62	0.59	0.56	-1.18	.2429
Topic	3.56	3.75	0.69	0.48	2.03	.0471*
Paragraph	3.61	3.58	0.71	0.60	-0.17	.8637
Evidence	3.57	3.58	0.74	0.53	0.14	.8880
Introduction	3.59	3.78	0.66	0.47	1.70	.0959
Conclusion	3.37	3.47	0.71	0.54	0.71	.4803
Opener	3.46	3.85	0.79	0.46	3.26	.0020**
Interrupter	3.50	3.79	0.80	0.60	2.67	.0100**
Closer	3.39	3.81	0.81	0.59	3.41	.0013**
Sentence Variety	3.44	3.49	0.69	0.64	0.55	.5823
Signal	1.94	2.25	1.14	1.07	1.72	.0917
Parallelism	1.65	2.62	0.95	1.16	5.95	.0001***
Total (Mean)	3.25	3.50	0.44	0.26	3.67	.0006***

* Significant at Alpha = .05 level
** Significant at Alpha = .01 level
*** Significant at Alpha - .001 level

TABLE 2 (continued)

MEANS OF STUDENT'S SELF EVALUATION OF WRITING SKILLS

10th GRADE (N=47)
SECOND YEAR

	Mean		SD			
Writing Skills	Fall	Spring	Fall	Spring	T	PR > T
Thesis	3.70	3.76	0.55	0.43	0.68	.4937
Organization	3.45	3.57	0.65	0.65	0.93	.3588
Topic	3.62	3.72	0.64	0.50	0.85	.3997
Paragraph	3.32	3.72	0.73	0.50	3.43	.0013**
Evidence	3.60	3.76	0.58	0.43	1.74	.0882
Introduction	3.68	3.78	0.56	0.42	0.89	.3769
Conclusion	3.45	3.54	0.54	0.55	0.94	.3514
Opener	3.42	3.74	0.93	.57	2.29	.0270
Interrupter	3.51	3.74	0.91	0.61	1.56	.1247
Closer	3.35	3.67	0.97	0.63	2.10	.0417*
Sentence Variety	3.36	3.54	0.85	0.66	1.43	.1596
Signal	2.55	3.04	1.06	1.05	2.47	.0173*
Parallelism	2.94	3.46	0.94	0.72	3.19	.0026**
Total (Mean)	3.38	3.62	0.76	0.59	3.29	.0020**

* Significant at Alpha = .05 level
** Significant at Alpha = .01 level
*** Significant at Alpha - .001 level

TABLE 2 (continued)

MEANS OF STUDENT'S SELF EVALUATION OF WRITING SKILLS

11th GRADE (N=40)
SECOND YEAR

	Mean		SD			
Writing Skills	Fall	Spring	Fall	Spring	T	PR > T
Thesis	3.80	3.85	0.46	0.48	0.57	.5703
Organization	3.73	3.80	0.51	0.52	0.77	.4456
Topic	3.75	3.78	0.49	0.58	0.22	.8304
Paragraph	3.63	3.78	0.59	0.58	1.23	.2251
Evidence	3.65	3.88	0.48	0.33	2.97	.0051**
Introduction	3.60	3.73	0.55	0.68	1.09	.2808
Conclusion	3.50	3.50	0.51	0.68	0	1.0000
Opener	3.83	3.83	0.38	0.55	0	1.0000
Interrupter	3.75	3.88	0.63	0.46	1.04	.3030
Closer	3.78	3.78	0.42	0.58	0	1.0000
Sentence Variety	3.38	3.63	0.84	0.54	1.82	.0768
Signal	2.88	3.28	1.02	0.99	2.51	.0163*
Parallelism	3.25	3.53	1.01	0.96	1.86	.0699
Total (Mean)	3.58	3.73	0.61	0.61	2.62	.0123*

* Significant at Alpha = .05 level
** Significant at Alpha = .01 level
*** Significant at Alpha - .001 level

TABLE 2 (continued)

MEANS OF STUDENT'S SELF EVALUATION OF WRITING SKILLS

12th GRADE (N=33)
SECOND YEAR

	Mean		SD			
Writing Skills	Fall	Spring	Fall	Spring	T	PR > T
Thesis	3.76	3.82	0.50	0.53	0.70	.4880
Organization	3.73	3.76	0.63	0.56	0.33	.7445
Topic	3.52	3.67	0.76	0.69	0.96	.3437
Paragraph	3.52	3.58	0.80	0.71	0.42	.6765
Evidence	3.60	3.76	0.61	0.50	1.71	.0960
Introduction	3.64	3.70	0.60	0.57	0.42	.6765
Conclusion	3.27	3.30	0.63	0.64	0.24	.8126
Opener	3.88	3.73	0.55	0.76	-1.41	.1690
Interrupter	4.00	3.79	0	0.70	-1.75	.0897
Closer	3.88	3.70	0.55	0.85	-1.44	.1605
Sentence Variety	3.73	3.48	0.67	0.80	-1.61	.1181
Signal	2.67	2.73	1.22	0.31	0.25	.8007
Parallelism	3.06	3.48	1.09	0.91	2.81	.0084**
Total (Mean)	3.56	3.58	0.66	0.66	0.42	.6783

* Significant at Alpha = .05 level
** Significant at Alpha = .01 level
*** Significant at Alpha - .001 level

TABLE 3

MEANS AND STANDARD DEVIATION OF KNOWLEDGE TEST
DEFINITION TEST

FIRST YEAR

Grade	Semester	Thesis	Organization	Topic	Paragraph
8th	Fall	2.67 (1.03)	3.36 (1.28)	4.48 (1.11)	4.57 (0.70)
	Spring	4.33 (0.76	3.25 (1.55)	4.75 (0.78)	4.95 (0.22)
9th	Fall	4.04 (0.86)	3.43 (1.60)	4.45 (1.14)	4.62 (0.92)
	Spring	4.35 (1.02)	3.96 (1.17)	4.83 (0.44)	4.72 (0.66)
10th	Fall	4.16 (0.78)	3.91 (1.32)	4.68 (0.67)	4.71 (0.73)
	Spring	4.24 (0.66)	4.21 (0.87)	4.64 (0.73)	4.74 (0.73)
11th	Fall	4.38 (0.64)	4.05 (1.31)	4.89 (0.39)	4.81 (0.46)
	Spring	4.69 (0.47)	4.47 (0.61)	4.72 (0.85)	4.89 (0.40)
12th	Fall	4.80 (0.47)	4.74 (0.44)	4.97 (0.16)	4.74 (0.94)
	Spring	4.67 (0.70)	4.49 (0.97)	4.87 (0.41)	4.85 (0.43)
Total	Fall	3.99 (1.06)	3.87 (1.35)	4.68 (0.84)	4.68 (0.78)
	Spring	4.44 (0.77)	4.06 (1.17)	4.76 (0.66)	4.82 (0.53)

Standard deviations in parentheses

TABLE 3 (continued)

MEANS AND STANDARD DEVIATION OF KNOWLEDGE TEST DEFINITION TEST

FIRST YEAR

Grade	Semester	Evidence		Introduction		Conclusion	
8th	Fall	4.29	(1.26)	3.93	(0.41)	4.19	(0.94)
	Spring	4.90	(0.63)	4.35	(0.53)	4.75	(0.49)
9th	Fall	4.77	(0.67)	4.30	(0.55)	4.53	(0.93)
	Spring	4.63	(0.93)	4.30	(1.19)	4.59	(0.81)
10th	Fall	4.66	(0.75)	4.21	(0.51)	4.46	(0.85)
	Spring	4.83	(0.44)	4.55	(0.50)	4.64	(0.76)
11th	Fall	4.95	(0.23)	4.70	(0.46)	4.95	(0.23)
	Spring	4.97	(0.17)	4.50	(0.78)	4.75	(0.44)
12th	Fall	4.87	(0.66)	4.64	(0.54)	4.90	(0.38)
	Spring	4.97	(0.16)	4.82	(0.39)	4.80	(0.47)
Total	Fall	4.70	(0.82)	4.34	(0.57)	4.59	(0.79)
	Spring	4.85	(0.58)	4.50	(0.77)	4.70	(0.62)

Standard deviations in parentheses

TABLE 3 (continued)

MEANS AND STANDARD DEVIATION OF KNOWLEDGE TEST DEFINITION TEST

FIRST YEAR

Grade	Semester	Opener	Interrupter	Closer
8th	Fall	2.05 (1.08)	1.79 (1.03)	1.98 (1.07)
	Spring	3.03 (0.89)	2.83 (0.78)	2.98 (0.97)
9th	Fall	1.40 (0.85)	1.28 (0.74)	1.30 (0.79)
	Spring	3.41 (0.78)	3.21 (0.75)	3.33 (0.79)
10th	Fall	2.84 (0.81)	2.89 (0.78)	2.82 (0.92)
	Spring	4.02 (0.68)	3.50 (0.77)	3.88 (0.74)
11th	Fall	3.32 (0.71)	3.32 (0.75)	3.19 (0.81)
	Spring	3.69 (0.75)	3.22 (0.68)	3.72 (0.66)
12th	Fall	3.28 (0.89)	3.26 (0.79)	3.18 (0.94)
	Spring	3.69 (0.57)	3.10 (0.31)	3.51 (0.64)
Total	Fall	2.53 (1.15)	2.45 (1.17)	2.45 (1.17)
	Spring	3.57 (0.81)	3.17 (0.71)	3.48 (0.83)

Standard deviations in parentheses

TABLE 3 (continued)

MEANS AND STANDARD DEVIATION OF KNOWLEDGE TEST
DEFINITION TEST

FIRST YEAR

Grade	Semester	Sentence Types SV	 SVO	 S1VC	 SPV
8th	Fall	1.67 (0.79)	1.64 (0.79)	1.60 (0.63)	1.55 (0.59)
	Spring	4.73 (0.99)	4.73 (0.99)	4.20 (1.51)	4.03 (1.59)
9th	Fall	3.15 (1.93)	3.75 (1.79)	3.40 (1.85)	2.21 (1.72)
	Spring	4.91 (0.59)	4.91 (0.59	4.83 (0.83)	4.83 (0.83)
10th	Fall	3.89 (1.69)	3.80 (1.73)	2.93 (1.89)	2.48 (1.65)
	Spring	4.43 (1.31)	4.33 (1.41)	3.45 (1.77)	3.33 (1.84)
11th	Fall	2.16 (1.48)	3.69 (1.69)	2.36 (1.29)	2.56 (1.40)
	Spring	3.72 (1.65)	3.69 (1.69)	2.36 (1.29)	2.56 (1.40)
12th	Fall	2.64 (1.72)	2.36 (1.56)	2.00 (1.26)	1.85 (1.25)
	Spring	3.80 (1.67)	4.05 (1.56)	2.77 (1.61)	2.39 (1.53)
Total	Fall	2.74 (1.75)	2.87 (1.76)	2.45 (1.63)	2.03 (1.41)
	Spring	4.35 (1.36)	4.37 (1.35)	3.59 (1.68)	3.49 (1.72)

Standard deviations in parentheses

TABLE 3 (continued)

MEANS AND STANDARD DEVIATION OF KNOWLEDGE TEST
DEFINITION TEST

FIRST YEAR

Grade	Semester	Sentence Type Explt	Signal	Parallelism	Total Mean	Probability (DF) T-Test
8th	Fall	1.52 (0.59)	1.38 (0.83)	1.24 (0.66)	2.58 (0.41)	P= .000
	Spring	2.88 (1.81)	1.40 (1.01)	1.43 (1.01)	3.56 (0.92)	(df = 41)
9th	Fall	2.36 (1.81)	1.53 (1.16)	1.35 (0.77)	3.05 (0.54)	P = .000
	Spring	4.65 (1.06)	2.91 (1.67)	1.57 (1.22)	4.08 (0.74)	(df = 46)
10th	Fall	1.91 (1.55)	1.86 (1.23)	2.26 (1.11)	3.42 (0.43)	P = .009
	Spring	2.95 (1.82)	3.02 (1.51)	3.52 (1.45)	3.84 (0.96)	(df = 43)
11th	Fall	2.03 (1.36)	2.84 (1.34)	2.78 (1.38)	3.47 (0.41)	P = .076
	Spring	2.33 (1.27)	2.86 (1.55)	3.36 (1.36)	3.69 (0.76)	(df = 36)
12th	Fall	1.67 (1.13)	2.56 (1.41)	1.97 (1.33)	3.43 (----)	P = .000
	Spring	2.13 (1.51)	3.10 (1.55)	2.41 (1.45)	3.79 (----)	(df = 38)
Total	Fall	1.91 (1.39)	2.00 (1.32)	1.89 (1.20)	3.18 (0.56)	P = .000
	Spring	3.05 (1.76)	2.67 (1.60)	2.65 (1.49)	3.80 (0.80)	(df = 208)

Standard deviations in parentheses

TABLE 4

MEANS AND STANDARD DEVIATION OF KNOWLEDGE TEST DEFINITION TEST

SECOND YEAR

Grade	Semester	Thesis	Organization	Topic	Paragraph
8th	Fall	2.28 (1.37)	2.94 (1.11)	4.09 (1.34)	4.50 (.97)
	Spring	3.91 (.62)	3.24 (.95)	4.46 (.93)	4.76 (.51)
9th	Fall	4.26 (.94)	4.30 (.84)	4.81 (.48)	4.78 (.66)
	Spring	4.50 (.57)	4.31 (.89)	4.78 (.66)	4.93 (.26)
10th	Fall	4.53 (.58)	3.77 (.94)	4.85 (.36)	4.72 (.71)
	Spring	4.52 (51.00)	4.13 (1.05)	4.96 (.21)	4.80 (.65)
11th	Fall	4.45 (.60)	4.32 (.62)	4.85 (.43)	4.85 (.36)
	Spring	4.27 (.55)	4.27 (.64)	4.77 (.48)	4.88 (.40)
12th	Fall	4.48 (.57)	3.82 (1.07)	4.97 (.17)	4.85 (.44)
	Spring	4.67 (.54)	4.55 (.51)	4.97 (.17)	4.97 (.17)
Total	Fall	3.91 (1.29)	3.80 (1.07)	4.68 (.80)	4.72 (.70)
	Spring	4.35 (.62)	4.05 (.97)	4.77 (.63)	4.86 (.45)

Standard deviations in parentheses

TABLE 4 (continued)

MEANS AND STANDARD DEVIATION OF KNOWLEDGE TEST
DEFINITION TEST

SECOND YEAR

Grade	Semester	Evidence		Introduction		Conclusion	
8th	Fall	3.54	(1.75)	3.46	(.86)	3.33	(.85)
	Spring	4.41	(.66)	3.87	(.62)	3.96	(.51)
9th	Fall	4.63	(1.07)	4.17	(.75)	4.69	(.72)
	Spring	4.96	(.19)	4.57	(.60)	4.69	(.51)
10th	Fall	4.79	(.69)	4.55	(.72)	4.60	(.54)
	Spring	4.87	(.34)	4.63	(.49)	4.61	(.77)
11th	Fall	4.95	(.22)	4.57	(.50)	4.67	(.47)
	Spring	4.85	(.43)	4.52	(.60)	4.60	(.50)
12th	Fall	4.82	(.73)	4.36	(.60)	4.58	(.50)
	Spring	5.00	(0)	4.79	(.42)	4.76	(.44)
Total	Fall	4.49	(1.20)	4.18	(.83)	4.33	(.86)
	Spring	4.80	(.46)	4.44	(.64)	4.49	(.63)

Standard deviations in parentheses

TABLE 4 (continued)

MEANS AND STANDARD DEVIATION OF KNOWLEDGE TEST
DEFINITION TEST

SECOND YEAR

Grade	Semester	Opener		Interrupter		Closer	
8th	Fall	1.78	(.98)	1.65	(.97)	1.74	(.97)
	Spring	2.04	(1.01)	1.94	(1.04)	1.96	(1.01)
9th	Fall	3.19	(.95)	3.11	(.96)	3.09	(1.03)
	Spring	3.35	(.95)	3.46	(.88)	3.30	(.86)
10th	Fall	3.09	(.97)	2.89	(.81)	2.89	(.89)
	Spring	3.74	(.80)	3.78	(.81)	3.63	(.83)
11th	Fall	3.77	(.70)	3.40	(.84)	3.63	(.77)
	Spring	3.35	(.58)	3.35	(.66)	3.40	(.67)
12th	Fall	3.45	(.67)	3.09	(.29)	3.30	(.68)
	Spring	3.33	(.89)	3.24	(.83)	3.33	(.89)
Total	Fall	2.97	(1.13)	2.77	(1.06)	2.86	(1.12)
	Spring	3.11	(1.07)	3.11	(1.10)	3.07	(1.07)

Standard deviations in parentheses

TABLE 4 (continued)

MEANS AND STANDARD DEVIATION OF KNOWLEDGE TEST
DEFINITION TEST

SECOND YEAR

Grade	Semester	Sentence Types			
		SV	SVO	S1VC	SPV
8th	Fall	1.54 (.69)	1.48 (.50)	1.46 (.50)	1.46 (.50)
	Spring	4.19 (1.30)	4.02 (1.41)	3.65 (1.52)	3.24 (1.73)
9th	Fall	4.89 (.57)	4.89 (.57)	4.78 (.82)	4.67 (.99)
	Spring	4.89 (.60)	4.89 (.60)	4.81 (.70)	4.81 (.80)
10th	Fall	4.62 (1.15)	4.74 (.99)	4.66 (1.05)	4.74 (.99)
	Spring	5.00 (0)	5.00 (0)	4.96 (.29)	4.83 (.71)
11th	Fall	4.57 (1.06)	4.52 (1.18)	3.63 (1.60)	3.32 (1.62)
	Spring	4.80 (.72)	4.75 (.78)	4.10 (1.41)	3.77 (1.58)
12th	Fall	3.30 (1.72)	3.45 (1.75)	2.36 (1.34)	2.42 (1.52)
	Spring	3.97 (1.57)	4.24 (1.50)	2.70 (1.57)	2.76 (1.62)
Total	Fall	3.75 (1.69)	3.78 (1.69)	3.42 (1.72)	3.36 (1.75)
	Spring	4.59 (1.04)	4.59 (1.06)	4.13 (1.40)	3.96 (1.56)

Standard deviations in parentheses

TABLE 4 (continued)

MEANS AND STANDARD DEVIATION OF KNOWLEDGE TEST
DEFINITION TEST

SECOND YEAR

Grade	Semester	Sentence Type Explt	Signal	Parallelism	Total Mean
8th	Fall	1.46 (.50)	1.28 (.68)	1.24 (.70)	2.31
	Spring	2.78 (1.67)	1.37 (.85)	1.48 (.86)	3.25
9th	Fall	4.63 (1.09)	1.61 (1.28)	1.78 (1.28)	4.02
	Spring	4.67 (1.08)	2.02 (1.27)	2.74 (1.46)	4.22
10th	Fall	4.28 (1.53)	2.49 (1.56)	3.13 (.95)	4.08
	Spring	4.65 (1.06)	3.20 (1.57)	3.30 (.84)	4.39
11th	Fall	3.38 (1.71)	2.75 (1.48)	3.42 (.98)	4.06
	Spring	3.97 (1.53)	3.10 (1.32)	3.67 (1.10)	4.14
12th	Fall	2.15 (1.39)	2.64 (1.43)	2.79 (1.47)	3.58
	Spring	2.48 (1.50)	2.85 (1.75)	3.91 (1.35)	3.91
Total	Fall	3.23 (1.79)	2.06 (1.42)	2.36 (1.37)	3.61
	Spring	3.78 (1.64)	2.41 (1.52)	2.89 (1.43)	3.98

Standard deviations in parentheses

TABLE 5
MOST APPLICABLE WRITING SKILLS

FIRST YEAR — SPRING *

Skill	Entire Pop (N=209)		8th Grade (N=42)		9th Grade (N=47)		10th Grade (N=44)		11th Grade (N=37)		12th Grade (N=39)	
	Rnk	Per	Rnk	Per	Rnk	Per	Rnk	Per	Rnk	Per	Rnk	Per
Thesis	1.0	94.4	1.0	90.5	1.0	90.9	1.0	90.7	2.0	88.6	1.0	97.4
Organization	2.0	84.3	2.0	83.3	3.0	65.9	2.0	81.4	2.0	88.6	3.0	92.3
Topic	7.0	40.6	6.0	38.1	6.0	45.5	4.5	53.5	7.0	25.7	7.0	30.8
Paragraph	5.0	46.2	8.0	26.2	4.0	63.6	6.0	44.2	5.0	45.7	6.0	43.6
Evidence	3.0	81.7	3.0	78.6	2.0	86.4	4.5	53.5	2.0	88.6	2.0	92.3
Introduction	4.0	62.4	4.0	59.5	5.0	56.8	3.0	60.5	4.0	62.9	4.0	64.1
Conclusion	6.0	42.1	5.0	54.8	7.0	34.1	7.0	30.2	6.0	40.0	5.0	46.2
Opener	11.0	3.1	10.5	2.4	11.0	4.6	11.5	2.3	10.0	5.7	11.5	0.0
Interrupter	12.0	2.5	11.5	0.0	11.0	4.6	11.5	2.3	12.0	2.9	10.5	2.6
Closer	13.0	1.5	11.5	0.0	11.0	4.6	13.0	0.0	12.0	2.9	11.5	0.0
Sentence Variety	8.0	22.3	7.0	31.0	9.0	13.6	8.0	23.4	8.0	22.9	8.0	18.0
Signal	10.0	7.1	9.0	7.1	13.0	2.3	10.0	14.0	9.0	8.6	10.5	2.6
Parallelism	9.0	10.7	10.5	2.4	8.0	15.9	9.0	20.9	12.0	2.9	9.0	7.7

* First year fall not given

TABLE 6
MOST APPLICABLE WRITING SKILLS

SECOND YEAR -- FALL

Skill	Entire Pop (N=228)		8th Grade (N=54)		9th Grade (N=54)		10th Grade (N=47)		11th Grade (N=40)		12th Grade (N=33)	
	Rnk	Per	Rnk	Per	Rnk	Per	Rnk	Per	Rnk	Per	Rnk	Per
Thesis	3	171	9	11	2	48	1	43	1	37	1	32
Organization	1	77	1	41	1	51	3	39	1	37	2	29
Topic	7	92	7	26	8	15	5	23	5	18	10	8
Paragraph	6	95	6	28	7	18	5	23	7	12	7	14
Evidence	2	178	4	33	2	48	2	40	3	30	3	27
Introduction	4	133	3	36	4	32	4	27	4	23	5	15
Conclusion	5	117	2	38	4	32	7	16	6	16	5	15
Opener	11	12	10	4	9	3	10	1	10	3	10	1
Interrupter	12	9	11	3	9	3	10	1	13	1	10	1
Closer	13	8	11	3	11	2	10	1	11	2	13	0
Sentence Variety	8	89	5	29	6	22	8	11	8	10	4	17
Signal	9	18	8	13	11	2	13	0	11	2	10	1
Parallelism	10	16	13	1	11	2	9	69	4	9	9	3

TABLE 7

FIRST YEAR ANALYTIC SCORES: MEAN, T-TEST

Category	Entire Pop (N=204)			8th Graders (N=41)		
	Fall	Spring	PR>T	Fall	Spring	PR>T
1. Subject divided into topics	2.41	3.86	.000	1.20	3.34	.000
2. Topic stated in paragraph	1.94	3.51	.000	0.24	2.61	.000
3. Thesis divided into topics	1.64	3.35	.000	0.41	2.78	.000
4. Organizational structure	0.26	0.17	.348	0.05	0.15	.457
5. Rhetorical organization	0.74	1.02	.128	0.02	0.80	.008
	----	----	----	----	----	----
Structures: Sub-Total	6.99	11.91	.000	1.93	9.68	.000
6. Thesis specific	2.17	3.52	.000	1.20	3.05	.000
7. Thesis implied	0.44	0.38	.538	0.15	0.22	.660
8. Thesis unified	1.68	3.25	.000	0.29	2.68	.000
9. Thesis authoritative	2.36	4.00	.000	0.61	2.98	.000
10. Thesis narrowed	2.16	3.40	.000	0.41	2.39	.000
11. Thesis maintained	1.79	2.87	.000	0.12	1.80	.000
12. Thesis original	2.16	3.53	.000	0.32	2.59	.000
	----	----	----	----	----	----
Thesis: Sub-Total	12.76	20.94	.000	3.10	15.71	.000
13. Topics support thesis	1.74	3.41	.000	0.37	2.66	.000
14. Evidence relevant (org)	0.25	0.19	.523	0.00	0.20	.132
15. Evidence relevant to topic	1.41	3.02	.000	0.07	2.56	.000
16. Evidence specific	1.37	2.80	.000	0.07	2.49	.000
17. Evidence new	1.74	3.36	.000	0.17	2.34	.000
18. Evidence supports thesis	1.80	3.04	.000	0.20	2.20	.000
19. Examples in paragraphs	1.21	2.70	.000	0.24	2.63	.000
	----	----	----	----	----	----
Evidence Sub-Total	9.54	18.53	.000	1.17	15.07	.000
20. Introduction explicit	4.64	4.84	.023	3.93	4.61	.033
21. Thesis stated	1.92	3.50	.000	0.56	2.66	.000
22. Provocative introduction	2.84	4.10	.000	1.10	3.27	.000
23. Set off by paragraph	4.41	4.75	.008	3.63	4.32	.104
24. Appropriate	4.13	4.69	.000	3.02	4.41	.001
	----	----	----	----	----	----
Introduction: Sub-Total	17.95	21.87	.000	12.24	19.27	.000
25. Conclusion explicit	4.34	4.73	.001	3.83	4.51	.033
26. Set off by paragraph	4.12	2.50	.000	3.56	4.29	.053
27. Sums up evidence	1.64	2.50	.000	0.10	1.66	.000
28. Sticks to subject	3.33	3.63	.159	2.27	3.29	.051
29. Non-repetitive	2.75	3.16	.056	1.44	2.51	.030
	----	----	----	----	----	----
Conclusion: Sub-Total	16.24	18.77	.000	11.44	16.41	.003
	----	----	----	----	----	----
TOTAL	67.55	95.67	.000	29.88	76.00	.000

TABLE 7 (continued)

FIRST YEAR ANALYTIC SCORES: MEAN, T-TEST

Category		9th Graders (N=46)			10th Graders (N=42)	
	Fall	Spring	PR>T	Fall	Spring	PR>T
1. Subject divided into topics	1.43	3.78	.000	2.60	4.62	.000
2. Topic stated in paragraph	0.46	3.28	.000	2.24	4.33	.000
3. Thesis divided into topics	0.50	3.30	.000	1.81	4.50	.000
4. Organizational structure	0.13	0.11	.890	0.95	0.02	.005
5. Rhetorical organization	0.11	0.96	.008	1.57	0.60	.029
Structure: Sub-Total	2.63	11.43	.000	9.17	14.07	.000
6. Thesis specific	1.30	3.52	.000	2.57	4.43	.000
7. Thesis implied	0.20	0.26	.710	0.29	0.00	.044
8. Thesis unified	0.41	3.02	.000	2.31	4.14	.000
9. Thesis authoritative	0.78	4.13	.000	2.50	4.31	.000
10. Thesis narrowed	0.61	3.33	.000	2.02	4.02	.000
11. Thesis maintained	0.35	2.80	.000	2.12	3.74	.001
12. Thesis original	0.43	3.24	.000	2.60	4.02	.004
Thesis: Sub-Total	4.09	20.30	.000	14.40	24.67	.000
13. Topics support thesis	0.39	3.07	.000	1.17	4.40	.000
14. Evidence relevant (org)	0.02	0.17	.197	0.71	0.02	.016
15. Evidence relevant to topic	0.15	2.80	.000	1.64	3.38	.001
16. Evidence specific	0.17	2.61	.000	1.36	2.88	.004
17. Evidence new	0.33	2.74	.000	1.55	4.02	.000
18. Evidence supports thesis	0.43	2.61	.000	1.83	3.55	.002
19. Examples in paragraphs	0.37	2.24	.000	1.26	2.74	.002
Evidence Sub-Total	1.87	16.24	.000	10.00	21.00	.000
20. Introduction explicit	4.54	4.74	.386	4.90	5.00	.323
21. Thesis stated	0.43	3.72	.000	2.48	4.43	.000
22. Provocative introduction	1.83	3.98	.000	3.64	4.43	.041
23. Set off by paragraph	4.09	4.59	.138	4.69	5.00	.085
24. Appropriate	3.83	4.59	.037	4.38	4.90	.052
Introduction: Sub-Total	14.72	21.61	.000	20.10	23.76	.000
25. Conclusion explicit	3.74	4.74	.006	4.81	4.90	.570
26. Set off by paragraph	3.30	4.67	.001	4.67	4.79	.635
27. Sums up evidence	0.22	2.07	.000	1.81	3.45	.003
28. Sticks to subject	2.61	3.89	.005	3.45	3.93	.345
29. Non-repetitive	1.54	2.91	.001	2.69	3.50	.147
Conclusion: Sub-Total	11.41	18.28	.000	17.43	20.57	.044
TOTAL	34.72	87.87	.000	71.10	104.07	.000

TABLE 7 (continued)

FIRST YEAR ANALYTIC SCORES: MEAN, T-TEST

Category	11th Graders (N=36)			12th Graders (N=39)		
	Fall	Spring	PR>T	Fall	Spring	PR>T
1. Subject divided into topics	3.33	3.78	.254	3.77	3.77	1.000
2. Topic stated in paragraph	3.33	3.58	.559	3.87	3.79	.865
3. Thesis divided into topics	3.03	2.97	.910	2.82	3.10	.545
4. Organizational structure	0.00	0.17	.245	0.13	0.41	.279
5. Rhetorical organization	0.17	0.72	.106	1.87	2.05	.759
Structure: Sub-Total	9.83	11.22	.240	12.46	13.10	.620
6. Thesis specific	2.78	3.39	.207	3.21	3.15	.917
7. Thesis implied	0.92	0.58	.254	0.77	0.92	.599
8. Thesis unified	2.67	3.11	.423	3.05	3.26	.671
9. Thesis authoritative	4.36	4.08	.519	4.05	4.49	.310
10. Thesis narrowed	4.25	3.53	.082	4.05	3.77	.582
11. Thesis maintained	2.72	2.75	.952	4.05	3.23	.093
12. Thesis original	4.03	3.86	.739	3.95	4.05	.815
Thesis: Sub-Total	21.72	21.28	.838	23.13	22.87	.909
13. Topics support thesis	3.03	3.19	.726	3.64	3.74	.831
14. Evidence relevant (org)	0.14	0.19	.786	0.41	0.38	.936
15. Evidence relevant to topic	2.25	2.47	.695	3.26	3.87	.155
16. Evidence specific	2.14	2.75	.248	3.44	3.33	.827
17. Evidence new	3.19	3.61	.404	3.92	4.21	.498
18. Evidence supports thesis	2.92	3.08	.760	4.05	3.90	.732
19. Examples in paragraphs	1.78	2.83	.017	2.62	3.13	.291
Evidence Sub-Total	15.58	18.14	.268	21.33	22.56	.568
20. Introduction explicit	5.00	5.00	----	4.90	4.90	1.000
21. Thesis stated	3.31	3.47	.745	3.23	3.13	.814
22. Provocative introduction	4.44	4.67	.487	3.54	4.26	.034
23. Set off by paragraph	5.00	5.00	.487*	4.77	4.87	.629
24. Appropriate	4.78	4.78	1.000	4.77	4.77	1.000
Introduction: Sub-Total	22.53	22.92	.556	21.21	21.92	.384
25. Conclusion explicit	4.67	4.56	.571	4.79	4.90	.570
26. Set off by paragraph	4.58	4.44	.571	4.64	4.87	.352
27. Sums up evidence	2.69	2.28	.378	3.79	3.05	.120
28. Sticks to subject	4.36	3.08	.003	4.23	3.87	.369
29. Non-repetitive	4.36	3.06	.002	4.13	3.85	.501
Conclusion: Sub-Total	20.67	18.11	.080	21.59	20.51	.391
TOTAL	113.58	112.47	.973	99.59	100.97	.824

Significant at Alpha = .05 level

TABLE 8

FIRST YEAR
RELIABILITY COEFFICIENTS OF ANALYTIC SCORING: UNIVERSITY HIGH SCHOOL WRITING PROJECT

Variables	Alpha	Reliability Coefficients Standardized Item Alpha
1. Structure	.86104	.84704
Subtotal of Structure	.92251	.92341
2. Thesis	.94966	.94576
Subtotal of Thesis	.85231	.85114
3. Evidence	.94681	.94069
Subtotal of Evidence	.88097	.88179
4. Introduction	.95739	.96421
Subtotal of Introduction	.92303	.92761
5. Conclusion	.92396	.93141
Subtotal of Conclusion	.73020	.73538
6. Global Total	.91479	.91457

TABLE 9

SECOND YEAR ANALYTIC SCORES: MEAN, T-TEST

Category	Entire Pop (N=228) Fall	Entire Pop (N=228) Spring	Entire Pop (N=228) PR>T	8th Graders (N=54) Fall	8th Graders (N=54) Spring	8th Graders (N=54) PR>T
1. Subject divided into topics	3.01	3.63	.0001	1.91	1.81	.7845
2. Topic stated in paragraph	2.85	3.55	.0001	1.58	1.65	.8014
3. Thesis divided into topics	2.55	3.04	.0021	1.32	1.48	.4537
4. Organizational structure	0.14	0.05	.1606	0.11	0.00	.2428
5. Rhetorical organization	0.04	0.39	.0004	0.00	0.39	.0353*
Structure: Sub-Total	8.59	10.66	.0001	4.92	5.33	.5131
6. Thesis specific	2.48	2.87	.0250*	1.45	1.81	.2126
7. Thesis implied	0.52	0.42	.3550	0.51	0.33	.4106
8. Thesis unified	2.31	3.15	.0001	1.11	1.87	.0194*
9. Thesis authoritative	2.67	3.73	.0001	1.36	1.83	.2166
10. Thesis narrowed	2.48	3.10	.0010	1.30	1.09	.5798
11. Thesis maintained	2.20	3.22	.0001	0.60	0.87	.3284
12. Thesis original	2.52	3.45	.0001	1.04	1.54	.2080
Thesis: Sub-Total	15.17	19.94	.0001	7.38	9.35	.2304
13. Topics support thesis	2.31	3.18	.0001	0.62	0.85	.4244
14. Evidence relevant (org)	0.38	0.57	.1557	0.49	1.28	.0087
15. Evidence relevant to topic	1.78	2.11	.0511	0.60	0.69	.7305
16. Evidence specific	1.91	2.43	.0025	0.66	1.00	.2450
17. Evidence new	2.31	3.43	.0001	0.62	1.19	.0816
18. Evidence supports thesis	2.08	2.91	.0001	.058	.072	.5666
19. Examples in paragraphs	2.38	2.18	.3607	1.75	2.11	.4170
Evidence Sub-Total	13.16	16.82	.0001	5.34	7.83	.0723
20. Introduction explicit	4.33	4.82	.0001	2.94	4.48	.0001
21. Thesis stated	2.36	3.45	.0001	.096	1.91	.0088
22. Provocative introduction	3.56	4.26	.0001	1.55	2.94	.0011
23. Set off by paragraph	4.11	4.78	.0001	2.23	4.35	.0001
24. Appropriate	3.53	4.22	.0001	2.15	2.72	.2145
Introduction: Sub-Total	17.89	21.52	.0001	9.83	16.41	.0003
25. Conclusion explicit	3.94	4.64	.0001	2.21	4.11	.0001
26. Set off by paragraph	3.68	4.52	.0001	1.53	3.89	.0001
27. Sums up evidence	1.89	3.05	.0001	0.32	1.35	.0001
28. Sticks to subject	2.93	3.53	.0001	0.79	1.52	.0030
29. Non-repetitive	2.59	3.33	.0001	0.79	1.12	.1714
Conclusion: Sub-Total	15.04	19.06	.0001	5.64	12.02	.0001
TOTAL	69.85	88.00	.0001	33.11	50.94	.0008

*Significant at Alpha = .05 level

TABLE 9 (continued)

SECOND YEAR ANALYTIC SCORES: MEAN, T-TEST

Category	9th Grade (N=54)			10th Grade (N=47)		
	Fall	Spring	PR>T	Fall	Spring	PR>T
1. Subject divided into topics	2.26	4.08	.0001	4.06	4.65	.0702
2. Topic stated in paragraph	2.09	4.00	.0001	3.89	4.65	.0184*
3. Thesis divided into topics	2.09	3.77	.0001	3.47	3.54	.7760
4. Organizational structure	0.04	0.10	.5688	0.13	0.00	.2435
5. Rhetorical organization	0.09	0.19	.5688	0.00	0.33	.0832
Structure: Sub-Total	6.57	12.13	.0001	11.55	13.17	.0568
6. Thesis specific	1.80	3.52	.0001	3.47	2.52	.0328*
7. Thesis implied	0.56	0.23	.1095	0.45	0.65	.4114
8. Thesis unified	1.48	3.77	.0001	3.62	3.02	.1922
9. Thesis authoritative	1.98	4.00	.0001	3.79	4.67	.0187*
10. Thesis narrowed	1.69	2.92	.0001	3.53	4.59	.0063
11. Thesis maintained	1.39	3.92	.0001	3.53	4.41	.0323
12. Thesis original	1.91	3.98	.0001	3.70	4.15	.2341
Thesis: Sub-Total	10.80	22.35	.0001	22.09	24.02	.2867
13. Topics support thesis	1.56	3.71	.0001	3.72	4.59	.0160
14. Evidence relevant (org)	0.37	0.46	.7567	0.28	0.00	.0738
15. Evidence relevant to topic	1.38	2.48	.0147*	2.51	2.67	.6308
16. Evidence specific	1.24	2.69	.0008	2.72	3.20	.2003
17. Evidence new	1.76	4.12	.0001	3.49	4.33	.0382*
18. Evidence supports thesis	1.31	3.23	.0001	3.06	4.24	.0086
19. Examples in paragraphs	2.04	2.69	.0964	2.81	1.54	.0009
Evidence Sub-Total	9.67	19.38	.0001	18.60	20.57	.2075
20. Introduction explicit	4.26	4.77	.0570	5.00	5.00	1.0000
21. Thesis stated	1.46	4.10	.0001	3.70	3.74	.8741
22. Provocative introduction	3.26	4.48	.0021	4.49	4.91	.0579
23. Set off by paragraph	4.09	4.71	.0666	5.00	5.00	1.0000
24. Appropriate	3.26	4.33	.0082	4.57	5.00	.0236*
Introduction: Sub-Total	16.33	22.38	.0001	22.77	23.65	.1326
25. Conclusion explicit	3.96	4.77	.0030	4.66	5.00	.0442*
26. Set off by paragraph	3.70	4.71	.0030	4.57	5.00	.0442*
27. Sums up evidence	1.09	3.79	.0001	3.26	3.63	.3044
28. Sticks to subject	2.74	3.63	.0219	4.06	4.83	.0072
29. Non-repetitive	2.13	3.63	.0002	3.47	4.74	.0001
Conclusion: Sub-Total	13.33	20.54	.0001	20.02	23.20	.0016
TOTAL	57.00	96.78	.0001	95.02	104.61	.0547

*Significant at Alpha = .05 level

TABLE 9 (continued)

SECOND YEAR ANALYTIC SCORES: MEAN, T-TEST

Category	11th Grade (N=40)			12th Grade (N=33)		
	Fall	Spring	PR>T	Fall	Spring	PR>T
1. Subject divided into topics	4.00	4.03	.8417	3.30	4.03	.1468
2. Topic stated in paragraph	4.02	3.89	.8597	3.24	4.03	.1273
3. Thesis divided into topics	3.67	4.00	.4382	2.58	2.61	.9548
4. Organizational structure	0.15	0.05	.4571	0.33	0.15	.4997
5. Rhetorical organization	0.00	0.55	.0348*	0.15	0.61	.1837
Structure: Sub-Total	11.85	12.53	.4639	9.61	11.42	.1421
6. Thesis specific	3.77	4.16	.3846	2.27	2.58	.5943
7. Thesis implied	0.30	0.16	.6607	0.82	0.82	1.0000
8. Thesis unified	3.70	4.37	.0774	2.06	3.03	.0636
9. Thesis authoritative	3.72	4.45	.0767	3.00	4.24	.0255*
10. Thesis narrowed	3.63	3.61	.9219	2.76	4.00	.0200*
11. Thesis maintained	3.52	3.71	.5454	2.61	3.76	.0302*
12. Thesis original	3.82	4.45	.1216	2.61	3.64	.0609
Thesis: Sub-Total	22.47	24.89	.2097	16.12	22.06	.0238*
13. Topics support thesis	3.77	3.61	.8442	2.45	3.70	.0217*
14. Evidence relevant (org)	0.30	0.63	.3272	0.48	0.30	.6007
15. Evidence relevant to topic	2.57	2.82	.4655	2.33	2.27	.9046
16. Evidence specific	3.02	2.78	.7936	2.52	2.91	.4088
17. Evidence new	3.32	4.00	.1869	3.00	4.12	.0109*
18. Evidence supports thesis	3.42	3.11	.5857	2.73	3.88	.0248*
19. Examples in paragraphs	3.22	2.89	.6230	2.33	1.58	.1068
Evidence Sub-Total	19.65	19.84	.7825	15.85	18.76	.1839
20. Introduction explicit	5.00	5.00	1.0000	4.88	5.00	.3248
21. Thesis stated	3.80	4.58	.0628	2.42	3.27	.0959
22. Provocative introduction	4.80	4.89	.3238	4.48	4.39	.7445
23. Set off by paragraph	5.00	5.00	1.0000	4.85	5.00	.3248
24. Appropriate	4.20	4.58	.1600	3.88	5.00	.0016
Introduction: Sub-Total	22.80	24.05	.0356*	20.52	22.67	.0144*
25. Conclusion explicit	4.80	4.68	.6607	4.64	4.76	.6617
26. Set off by paragraph	4.75	4.39	.3057	4.55	4.70	.6617
27. Sums up evidence	3.20	3.97	.1247	2.18	2.79	.3122
28. Sticks to subject	3.85	3.97	.9432	3.94	4.33	.4222
29. Non-repetitive	3.75	3.97	.8372	3.58	3.70	.8265
Conclusion: Sub-Total	20.35	21.00	.8625	18.88	20.27	.4593
TOTAL	87.13	102.32	.3667	80.87	95.18	.0395*

*Significant at Alpha = .05 level

TABLE 10

FIRST YEAR
WRITING STRATEGIES USED IN STUDENTS' COMPOSITIONS

Strategy		Entire Population (N=209)		8th Grade (N=42)		9th Grade (N=47)		10th Grade (N=44)		11th Grade (N=37)		12th Grade (N=39)	
		ST	NS	ST	NS	ST	NS	ST	NS	ST	NS	ST	NS
Comparison-Contrast	F	2.4 (5.0)	97.1 (203.0)	0.0 (0.0)	100.00 (42.0)	2.1 (1.0)	95.7 (45.0)	2.3 (1.0)	97.7 (43.0)	0.0 (0.0)	100.0 (37.0)	7.7 (3.0)	92.3 (36.0)
	S	4.8 (10.0)	92.8 (194.0)	9.5 (4.0)	88.1 (37.0)	4.3 (2.0)	93.6 (44.0)	4.5 (2.0)	90.9 (40.0)	2.7 (1.0)	94.6 (35.0)	2.6 (1.0)	97.4 (38.0)
Definition	F	0.5 (1.0)	99.5 (208.0)	0.0 (0.0)	100.0 (42.0)	2.1 (1.0)	97.1 (46.0)	0.0 (0.0)	100.0 (44.0)	0.0 (0.0)	100.0 (37.0)	0.0 (0.0)	100.0 (39.0)
	S	0.5 (1.0)	97.1 (203.0)	0.0 (0.0)	97.6 (41.0)	2.1 (1.0)	95.7 (45.0)	0.0 (0.0)	95.5 (42.0)	0.0 (0.0)	97.3 (36.0)	0.0 (0.0)	100.0 (39.0)
Classif-cation	F	0.5 (1.0)	99.5 (208.)	0.0 (0.0)	100.0 (42.0)	2.1 (1.0)	97.9 (46.0)	0.0 (0.0)	100.0 (44.0)	0.0 (0.0)	100.0 (37.0)	0.0 (0.0)	100.0 (39.0)
	S	0.0 (0.0)	97.6 (204.0)	0.0 (0.0)	97.6 (41.0)	0.0 (0.0)	97.9 (46.0)	0.0 (0.0)	95.5 (42.0)	0.0 (0.0)	97.3 (36.0)	0.0 (0.0)	100.0 (39.0)
Cause-Effect	F	16.3 (34.0)	83.3 (174.0)	9.6 (4.0)	90.5 (38.0)	2.1 (1.0)	95.7 (45.0)	31.8 (14.0)	68.2 (30.0)	5.4 (2.0)	94.6 (35.0)	33.4 (13.0)	66.7 (26.0)
	S	2.4 (5.0)	95.2 (199.0)	4.8 (2.0)	92.9 (39.0)	2.1 (1.0)	95.7 (45.0)	0.0 (0.0)	95.5 (42.0)	0.0 (0.0)	97.3 (36.0)	5.1 (2.0)	94.9 (37.0)
Narration	F	53.6 (112.0)	46.4 (97.0)	90.5 (38.0)	9.5 (4.0)	85.1 (40.0)	14.9 (7.0)	40.8 (18.0)	59.1 (26.0)	32.4 (12.0)	67.6 (25.0)	10.3 (4.0)	89.7 (35.0)
	S	9.1 (19.0)	88.5 (185.0)	11.9 (5.0)	85.7 (36.0)	8.5 (4.0)	89.4 (42.0)	6.8 (3.0)	88.6 (39.0)	13.5 (5.0)	83.8 (31.0)	5.1 (2.0)	94.9 (37.0)

ST = One or more strategies are used in the composition
NS = No strategies are used in the composition

TABLE 10 (continued)

FIRST YEAR
WRITING STRATEGIES USED IN STUDENTS' COMPOSITIONS

		Entire Population (N=209)		8th Grade (N=42)		9th Grade (N=47)		10th Grade (N=44)		11th Grade (N=37)		12th Grade (N=39)	
Strategy		ST	NS	ST	NS	ST	NS	ST	NS	ST	NS	ST	NS
Description	F	9.1 (19.0)	90.4 (189.0)	0.0 (0.0)	100.0 (42.0)	10.6 (5.0)	87.2 (41.0)	2.3 (1.0)	97.7 (43.0)	21.6 (8.0)	78.4 (29.0)	12.9 (5.0)	87.2 (34.0)
	S	2.4 (5.0)	95.2 (199.0)	2.4 (1.0)	95.2 (40.0)	0.0 (0.0)	97.9 (46.0)	2.3 (1.0)	93.2 (41.0)	5.4 (2.0)	91.9 (34.0)	2.6 (1.0)	97.4 (38.0)
Illustration	F	26.8 (56.0)	72.7 (152.0)	9.6 (4.0)	90.5 (38.0)	10.6 (5.0)	87.2 (41.0)	31.8 (14.0)	68.2 (30.0)	54.0 (20.0)	45.9 (17.0)	33.3 (13.0)	66.7 (26.0)
	S	77.5 (162.0)	19.6 (41.0)	71.4 (30.0)	26.2 (11.0)	72.4 (34.0)	25.5 (12.0)	84.1 (37.0)	9.1 (4.0)	75.7 (28.0)	21.6 (8.0)	84.7 (33.0)	15.4 (6.0)
Process	F	3.4 (7.0)	96.2 (201.0)	0.0 (0.0)	100.0 (42.0)	0.0 (0.0)	97.9 (46.0)	9.0 (4.0)	90.9 (40.0)	2.7 (1.0)	97.3 (36.0)	5.1 (2.0)	94.9 (37.0)
	S	1.5 (3.0)	96.2 (201.0)	0.0 (0.0)	97.6 (41.0)	2.1 (1.0)	95.7 (45.0)	2.3 (1.0)	93.2 (41.0)	0.0 (0.0)	97.3 (36.0)	2.6 (1.0)	97.4 (38.0)
Argument	F	1.9 (4.0)	95.7 (200.0)	0.0 (0.0)	97.6 (41.0)	0.0 (0.0)	97.9 (46.0)	4.5 (2.0)	93.2 (41.0)	0.0 (0.0)	94.6 (35.0)	5.1 (2.0)	94.9 (37.0)
	S	1.0 (2.0)	96.7 (202.0)	0.0 (0.0)	97.6 (41.0)	0.0 (0.0)	97.9 (46.0)	2.3 (1.0)	93.2 (41.0)	2.7 (1.0)	94.6 (35.0)	0.0 (0.0)	100.0 (39.0)

ST = One or more strategies are used in the composition
NS = No strategies are used in the composition

TABLE 11

SECOND YEAR
WRITING STRATEGIES USED IN STUDENTS' COMPOSITIONS

		Entire Population (N=209)		8th Grade (N=42)		9th Grade (N=47)		10th Grade (N=44)		11th Grade (N=37)		12th Grade (N=39)	
Strategy		ST	NS	ST	NS	ST	NS	ST	NS	ST	NS	ST	NS
Comparison-Contrast	F	1.0 (.4)	224.0 (98.6)	1.0 (2.0)	51.0 (98.0)	0.0 (0.0)	54.0 (100.0)	0.0 (0.0)	47.0 (100.0)	0.0 (0.0)	40.0 (100.0)	0.0 (0.0)	32.0 (100.0)
	S	35.0 (15.0)	198.0 (85.0)	4.0 (9.0)	49.0 (91.0)	7.0 (13.0)	45.0 (87.0)	2.0 (4.0)	44.0 (96.0)	4.0 (11.0)	34.0 (89.0)	7.0 (21.0)	26.0 (79.0)
Definition	F	1.0 (.4)	224.0 (99.6)	1.0 (2.0)	51.0 (98.0)	0.0 (0.0)	54.0 (100.0)	0.0 (0.0)	47.0 (100.0)	0.0 (0.0)	40.0 (100.0)	0.0 (0.0)	32.0 (100.0)
	S	10.0 (5.0)	213.0 (95.0)	1.0 (2.0)	53.0 (98.0)	5.0 (10.0)	47.0 (90.0)	2.0 (5.0)	44.0 (95.0)	2.0 (5.0)	36.0 (95.0)	0.0 (0.0)	33.0 (100.0)
Classification	F	0.0 (0.0)	224.0 (100.0)	0.0 (0.0)	51.0 (100.0)	0.0 (0.0)	54.0 (100.0)	0.0 (0.0)	57.0 (100.0)	0.0 (0.0)	40.0 (100.0)	0.0 (0.0)	32.0 (100.0)
	S	0.0 (0.0)	223.0 (100.0)	0.0 (0.0)	54.0 (100.0)	0.0 (0.0)	52.0 (100.0)	0.0 (0.0)	46.0 (100.0)	0.0 (0.0)	38.0 (100.0)	0.0 (0.0)	33.0 (100.0)
Cause-Effect	F	7.0 (3.1)	217.0 (96.9)	3.0 (6.0)	48.0 (94.0)	1.0 (2.0)	53.0 (98.0)	0.0 (0.0)	57.0 (100.0)	1.0 (3.0)	39.0 (97.0)	2.0 (6.0)	30.0 (94.0)
	S	20.0 (9.0)	203.0 (91.0)	8.0 (15.0)	46.0 (85.0)	4.0 (8.0)	48.0 (92.0)	1.0 (2.0)	45.0 (98.0)	5.0 (13.0)	33.0 (87.0)	2.0 (6.0)	31.0 (94.0)
Narration	F	38.0 (17.0)	186.0 (83.0)	16.0 (32.0)	35.0 (68.0)	10.0 (18.0)	44.0 (82.0)	5.0 (10.0)	42.0 (90.0)	2.0 (5.0)	38.0 (95.0)	5.0 (15.0)	27.0 (85.0)
	S	28.0 (13.0)	195.0 (87.0)	20.0 (37.0)	34.0 (63.0)	4.0 (8.0)	48.0 (92.0)	0.0 (0.0)	46.0 (100.0)	2.0 (5.0)	36.0 (95.0)	2.0 (6.0)	31.0 (94.0)

ST = One or more strategies are used in the composition
NS = No strategies are used in the composition

TABLE 11

SECOND YEAR
WRITING STRATEGIES USED IN STUDENTS' COMPOSITIONS

Strategy		Entire Population (N=209)		8th Grade (N=42)		9th Grade (N=47)		10th Grade (N=44)		11th Grade (N=37)		12th Grade (N=39)	
		ST	NS	ST	NS	ST	NS	ST	NS	ST	NS	ST	NS
Description	F	59.0 (26.0)	167.0 (14.0)	29.0 (55.0)	24.0 (45.0)	18.0 (33.0)	36.0 (67.0)	5.0 (11.0)	42.0 (89.0)	4.0 (10.0)	36.0 (90.0)	3.0 (9.0)	29.0 (81.0)
	S	4.0 (2.0)	219.0 (98.0)	0.0 (0.0)	54.0 (100.0)	1.0 (2.0)	51.0 (98.0)	1.0 (2.0)	45.0 (98.0)	0.0 (0.0)	38.0 (100.0)	2.0 (6.0)	31.0 (94.0)
Illustration	F	131.0 (18.0)	94.0 (42.0)	8.0 (16.0)	44.0 (84.0)	28.0 (52.0)	26.0 (48.0)	39.0 (83.0)	8.0 (17.0)	32.0 (80.0)	8.0 (20.0)	24.0 (75.0)	8.0 (25.0)
	S	183.0 (82.0)	40.0 (18.0)	41.0 (74.0)	14.0 (26.0)	45.0 (87.0)	7.0 (13.0)	42.0 (91.0)	4.0 (9.0)	9.0 (76.0)	9.0 (24.0)	27.0 (82.0)	6.0 (18.0)
Process	F	1.0 (.4)	224.0 (99.6)	0.0 (0.0)	52.0 (100.0)	1.0 (2.0)	53.0 (98.0)	0.0 (0.0)	47.0 (100.0)	0.0 (0.0)	40.0 (100.0)	0.0 (0.0)	32.0 (100.0)
	S	3.0 (1.3)	220.0 (98.7)	0.0 (0.0)	54.0 (100.0)	1.0 (2.0)	51.0 (98.0)	0.0 (0.0)	46.0 (100.0)	1.0 (3.0)	37.0 (97.0)	1.0 (3.0)	32.0 (97.0)
Argument	F	3.0 (1.3	222.0 (98.7	0.0 (0.0)	52.0 (100.0)	0.0 (0.0)	54.0 (100.0)	0.0 (0.0)	47.0 (100.0)	1.0 (2.5	39.0 (97.5	2.0 (6.0)	30.0 (94.0)
	S	0.0 (0.0)	222.0 (100.0)	0.0 (0.0)	54.0 (100.0)	0.0 (0.0)	51.0 (100.0)	0.0 (0.0)	46.0 (100.0)	0.0 (0.0)	38.0 (100.0)	0.0 (0.0)	33.0 (100.0)

ST = One or more strategies are used in the composition
NS = No strategies are used in the composition

TABLE 12

FIRST AND SECOND YEAR
MEAN NUMBER OF STRATEGIES USED IN STUDENTS' COMPOSITIONS

	1st Yr Fall		1st Yr Spring		2nd Yr Fall		2nd Yr S	
8th Grade	11.19	(2.53)	5.15	(3.73)	10.66	(4.33)	4.91	(3
9th Grade	11.04	(2.61)	4.96	(3.51)	7.36	(4.53)	3.98	(2
10th Grade	9.33	(4.18)	3.86	(2.67)	4.51	(3.37)	3.78	(2
11th Grade	7.06	(4.50)	4.83	(3.55)	4.70	(3.54)	4.97	(3
12th Grade	8.08	(4.20)	4.38	(3.27)	5.25	(3.98)	4.88	(3
Total	9.67	(3.90)	4.64	(3.36)	6.77	(4.48)	4.47	(3

Standard Deviation in parenthesis

TABLE 13

FIRST AND SECOND YEAR SYNTAX ANALYSIS

Grade	Semester	Mean T-Unit Length	Mean Base Length	Mean Sentence Length	Mean # of Sentences Per Paragraph	Mean # of T-Units Per Paragraph
8th	1	11.64	9.63	13.92	3.95	4.73
	2	13.35	10.74	15.81	4.16	4.86
	3	10.63	9.09	13.59	3.99	4.89
	4	13.29	11.66	16.30	4.10	4.98
9th	1	12.75	10.21	15.56	4.18	5.07
	2	14.47	11.36	17.84	4.35	5.31
	3	12.86	10.56	15.12	4.23	4.91
	4	15.18	12.30	18.00	4.61	5.35
10th	1	13.51	11.08	16.86	4.21	5.21
	2	14.72	11.81	17.76	4.62	5.51
	3	13.50	11.21	15.65	4.63	5.31
	4	15.43	13.22	18.70	4.83	5.76
11th	1	15.44	11.35	16.98	5.52	6.68
	2	14.53	10.98	17.38	4.74	5.61
	3	14.78	11.32	17.70	4.38	5.20
	4	15.55	12.79	18.90	4.56	5.41
12th	1	14.64	11.73	18.73	4.22	5.33
	2	14.66	11.86	17.40	5.24	6.14
	3	14.35	11.44	17.23	4.47	5.30
	4	17.03	13.25	18.27	4.90	5.16
Total	1	13.42	10.72	16.25	4.33	5.29
	2	14.33	11.36	17.24	4.58	5.44
	3	13.08	10.65	15.68	4.33	5.11
	4	14.92	12.55	17.92	4.54	5.36

TABLE 14

FIRST YEAR
MEAN AND STANDARD DEVIATION OF SYNTAX ANALYSIS

Grade	Semester	# of Paragraphs	# of Sentences	# of Words	# of Fragments
8th	Fall (N=42)	4.9	19.3	268.8	0.3
	Spring (N=40)	4.2	17.5	276.0	0.7
9th	Fall (N=47)	4.3	18.0	280.4	0.3
	Spring (N=46)	3.7	16.2	288.5	0.2
10th	Fall (N=44)	4.1	17.3	290.8	0.1
	Spring (N=42)	3.6	16.7	297.3	0.1
11th	Fall (N=35)	3.2	17.6	299.6	0.1
	Spring (N=36)	3.5	16.8	292.5	0.1
12th	Fall (N=39)	3.7	15.7	293.4	0.2
	Spring (N=39)	3.3	17.2	298.9	0.1
Total	Fall (N=207)	4.1	17.6	286.0	0.2
	Spring (N=203)	3.7	16.9	290.6	0.2

TABLE 14 (continued)

FIRST YEAR
MEAN AND STANDARD DEVIATION OF SYNTAX ANALYSIS

Grade	Semester	# of Sentence Type One	# of Sentence Type Two	# of Sentence Type Three	# of Sentence Type Four
8th	Fall (N=42)	4.0	12.1	4.6	0.5
	Spring (N=40)	1.5	10.9	6.9	0.4
9th	Fall (N=47)	3.7	11.9	6.0	0.2
	Spring (N=46)	1.0	10.7	7.0	0.2
10th	Fall (N=44)	1.8	13.2	4.5	0.3
	Spring (N=42)	0.7	11.3	7.0	0.3
11th	Fall (N=35)	4.0	9.7	5.6	1.0
	Spring (N=36)	0.8	10.8	7.2	0.3
12th	Fall (N=39)	3.2	10.2	4.6	0.9
	Spring (N=39)	1.1	11.1	6.3	0.5
Total	Fall (N=207)	3.3	11.5	5.0	0.5
	Spring (N=203)	1.0	11.0	6.9	0.3

Type One = S-V
Type Two = S-V-O
Type Three = S-LV-C
Type Four = S-PV

TABLE 14 (continued)

FIRST YEAR
MEAN AND STANDARD DEVIATION OF SYNTAX ANALYSIS

Grade	Semester	# of Sentence Type Five	# of Sentence Type Six	Total # of Sentence Types	# of Openers
8th	Fall (N=42)	2.0	0.2	23.3	7.3
	Spring (N=40)	0.6	0.1	20.3	4.8
9th	Fall (N=47)	1.2	0.1	25.2	7.3
	Spring (N=46)	0.8	0.1	19.8	4.9
10th	Fall (N=44)	1.4	0.2	21.4	6.8
	Spring (N=42)	0.9	0.1	20.1	5.4
11th	Fall (N=35)	0.9	0.0	21.2	6.1
	Spring (N=36)	0.6	0.1	19.8	5.3
12th	Fall (N=39)	1.0	0.0	19.9	6.1
	Spring (N=39)	0.9	0.0	19.9	5.1
Total	Fall (N=207)	1.3	0.1	22.3	6.8
	Spring (N=203)	0.8	0.1	20.0	5.1

Type Five = It/there
Type Six = Ambiguous

TABLE 14 (continued)

FIRST YEAR
MEAN AND STANDARD DEVIATION OF SYNTAX ANALYSIS

Grade	Semester	# of Interrupters	# of Closers	# of Signals	# of Parallelisms
8th	Fall (N=42)	1.3	2.6	5.6	5.4
	Spring (N=40)	2.7	2.7	3.4	5.2
9th	Fall (N=47)	2.5	3.1	5.1	5.8
	Spring (N=46)	3.1	3.0	2.6	5.7
10th	Fall (N=44)	1.8	2.7	4.7	4.5
	Spring (N=42)	2.7	3.1	2.9	6.1
11th	Fall (N=35)	2.0	2.1	5.4	8.9
	Spring (N=36)	2.8	3.5	2.4	5.8
12th	Fall (N=39)	1.7	2.8	4.0	5.5
	Spring (N=39)	2.6	2.6	2.7	5.8
Total	Fall (N=207)	1.9	2.7	5.0	6.0
	Spring (N=203)	2.8	3.0	2.8	5.7

TABLE 14 (continued)

FIRST YEAR
MEAN AND STANDARD DEVIATION OF SYNTAX ANALYSIS

NUMBER OF SENTENCE ERRORS

Grade	Semester	Error Type One	Error Type Two	Error Type Three	Error Type Four
8th	Fall (N=42)	0.3	0.5	0.9	0.0
	Spring (N=40)	1.0	0.1	0.4	0.3
9th	Fall (N=47)	0.9	0.2	0.3	0.1
	Spring (N=46)	0.7	0.0	0.4	0.5
10th	Fall (N=44)	0.1	0.3	0.2	0.4
	Spring (N=42)	1.0	0.2	0.1	0.3
11th	Fall (N=35)	0.3	0.1	0.1	0.1
	Spring (N=36)	0.7	0.1	0.2	0.1
12th	Fall (N=39)	0.3	0.1	0.0	0.2
	Spring (N=39)	0.3	0.1	0.4	0.1
Total	Fall (N=207)	0.4	0.3	0.3	0.2
	Spring (N=203)	0.7	0.1	0.3	0.3

Type One = Comma Splice
Type Two = Weak Signal
Type Three = Run-on
Type Four = Weak Parallelism

TABLE 14 (continued)

FIRST YEAR
MEAN AND STANDARD DEVIATION OF SYNTAX ANALYSIS

Grade	Semester	Total # of Words in Essay	Total # of Words Per Base		Mean # of Words Per Free Unit	
8th	Fall (N=42)	218.6	9.72	(1.91)	4.22	(1.47)
	Spring (N=40)	219.6	10.94	(1.86)	5.08	(1.42)
9th	Fall (N=47)	238.8	10.55	(2.12)	4.56	(1.18)
	Spring (N=46)	227.0	11.70	(2.23)	5.24	(1.57)
10th	Fall (N=44)	235.2	11.45	(2.70)	4.56	(1.32)
	Spring (N=42)	232.5	12.12	(2.15)	5.35	(1.70)
11th	Fall (N=35)	246.1	11.67	(1.79)	5.02	(1.31)
	Spring (N=36)	218.9	11.20	(2.08)	5.60	(1.66)
12th	Fall (N=39)	233.4	12.08	(2.66)	5.34	(1.64)
	Spring (N=39)	239.8	12.19	(1.95)	5.41	(1.92)
Total	Fall (N=207)	234.3	11.5	(2.41)	4.72	(1.43)
	Spring (N=203)	227.7	11.64	(2.10)	5.33	(1.65)

Standard Deviation in parenthesis

TABLE 14 (continued)

FIRST YEAR
MEAN AND STANDARD DEVIATION OF SYNTAX ANALYSIS

Grade	Semester	Total # of Words/Bases		Total # of Free Units		Total # of Words/Free Units		Total # of Bases	
8th	Fall (N=42)	218.64	(35.38)	11.12	(4.73)	45.36	(21.21)	23.24	(5.43)
	Spring (N=40)	219.57	(42.65)	10.35	(4.11)	51.65	(21.78)	20.45	(4.77)
9th	Fall (N=47)	227.34	(34.65)	11.36	(4.56)	50.55	(21.06)	22.21	(4.78)
	Spring (N=46)	225.48	(30.78)	10.80	(3.84)	56.39	(25.38)	19.85	(4.25)
10th	Fall (N=44)	235.20	(28.64)	11.23	(4.60)	50.66	(23.26)	21.23	(3.81)
	Spring (N=42)	232.48	(26.43)	11.12	(3.89)	58.50	(26.73)	19.69	(3.64)
11th	Fall (N=35)	244.74	(24.27)	10.40	(4.09)	51.51	(22.38)	21.31	(3.07)
	Spring (N=36)	218.97	(36.30)	11.61	(4.03)	65.53	(30.95)	19.94	(4.01)
12th	Fall (N=39)	233.41	(34.68)	10.36	(4.31)	55.08	(26.91)	19.87	(3.83)
	Spring (N=39)	239.79	(24.21)	10.26	(3.51)	54.77	(23.41)	20.21	(4.02)
Total	Fall (N=207)	231.33	(32.84)	10.93	(4.46)	50.54	(22.96)	21.62	(4.12)
	Spring (N=203)	227.36	(33.22)	10.82	(3.87)	57.02	(25.87)	20.02	(4.12)

Standard Deviation in parenthesis

TABLE 15 (continued)

FIRST YEAR
MEAN AND STANDARD DEVIATION OF SYNTAX ANALYSIS

Grade	Semester	# of Sentence Type One		# of Sentence Type Two		# of Sentence Type Three		# of Sentence Type Four	
8th	Fall (N=53)	2.21	(3.98)	11.15	(6.75)	6.36	(4.51)	0.43	(1.60)
	Spring (N=54)	2.07	(2.13)	9.43	(4.19)	6.59	(3.03)	0.63	(1.34)
9th	Fall (N=54)	1.54	(2.40)	11.37	(4.19	6.09	(2.95)	0.31	(0.89)
	Spring (N=52)	1.90	(2.48)	9.13	(3.79)	6.94	(2.70)	0.50	(1.09)
10th	Fall (N=46)	1.63	(3.43)	11.74	(4.73)	6.76	(3.86)	0.22	(0.63)
	Spring (N=46)	1.46	(2.28)	8.48	(3.67)	7.57	(3.16)	0.61	(1.26)
11th	Fall (N=40)	0.72	(1.48)	11.95	(5.06)	6.45	(2.95)	0.22	(0.70)
	Spring (N=39)	1.59	(2.06)	8.85	(3.22)	6.46	(2.35)	0.41	(0.79)
12th	Fall (N=33)	1.12	(2.12)	12.06	(3.74)	5.94	(2.37)	0.15	(.51)
	Spring (N=32)	1.44	(2.08)	9.09	(3.76)	7.06	(2.83)	0.50	(0.95)
Total	Fall (N=226)	1.51	(2.94)	11.60	(5.07)	6.33	(3.48)	0.28	(0.99)
	Spring (N=223)	1.73	(2.22)	9.01	(3.76)	6.92	(2.85)	0.54	(1.12)

Type One = S-V
Type Two = S-V-O
Type Three = S-LV-C
Type Four = S-PV

TABLE 15 (continued)

SECOND YEAR
MEAN AND STANDARD DEVIATION OF SYNTAX ANALYSIS

Grade	Semester	# of Sentence Type Five		# of Sentence Type Six		Total # of Sentence Types		# of Openers	
8th	Fall (N=53)	0.58	(1.68)	0.21	(1.51)	20.62	(14.23)	4.55	(4.27)
	Spring (N=54)	1.30	(1.49)	0.07	(0.26)	20.11	(5.26)	3.54	(2.52)
9th	Fall (N=54)	0.81	(1.01)	0.09	(0.29)	20.26	(5.12)	5.50	(3.64)
	Spring (N=52)	1.08	(1.38)	0.10	(0.36)	19.31	(4.14)	5.54	(3.45)
10th	Fall (N=46)	1.51	(1.53)	0.04	(0.21)	21.54	(4.72)	5.02	(2.44)
	Spring (N=46)	1.26	(1.25)	0.00	(0.00)	19.37	(3.23)	4.78	(2.59)
11th	Fall (N=40)	0.90	(1.15)	0.07	(0.35)	20.32	(4.02)	7.25	(3.61)
	Spring (N=39)	1.54	(1.50)	0.03	(0.16)	18.85	(3.29)	5.64	(2.84)
12th	Fall (N=33)	0.70	(0.81)	0.00	(0.00)	20.00	(3.72)	6.85	(2.93)
	Spring (N=32)	0.84	(0.95)	0.09	(0.39)	19.09	(3.33)	6.16	(3.44)
Total	Fall (N=226)	0.83	(1.31)	0.09	(0.76)	20.58	(7.90)	5.69	(3.61)
	Spring (N=223)	1.22	(1.36)	0.06	(0.27)	19.40	(4.03)	5.00	(3.08)

Type Five = It/then
Type Six = Ambiguous

TABLE 15 (continued)

SECOND YEAR
MEAN AND STANDARD DEVIATION OF SYNTAX ANALYSIS

Grade	Semester	# of Interrupters		# of Closers		# of Signals		# of Parallelisms	
8th	Fall (N=53)	1.58	(1.96)	1.91	(1.68)	2.66	(2.33)	3.92	(2.67)
	Spring (N=54)	1.65	(1.58)	2.00	(2.02)	1.96	(1.70)	3.67	(2.64)
9th	Fall (N=54)	2.15	(1.81)	2.39	(2.05)	3.24	(2.85)	4.37	(2.71)
	Spring (N=52)	2.77	(2.21)	2.63	(2.51)	2.38	(1.96)	4.69	(2.98)
10th	Fall (N=46)	1.91	(1.80)	2.39	(1.99)	3.41	(1.86)	4.28	(2.70)
	Spring (N=46)	2.28	(1.57)	2.04	(1.99)	2.52	(2.17)	5.50	(2.56)
11th	Fall (N=40)	2.60	(2.15)	2.92	(1.82)	4.38	(2.44)	5.60	(2.81)
	Spring (N=39)	1.64	(1.29)	3.13	(3.24)	3.33	(2.57)	4.72	(3.07)
12th	Fall (N=33)	2.52	(1.92)	2.42	(1.41)	4.30	(1.79)	5.52	(2.61)
	Spring (N=32)	2.28	(1.69)	1.94	(2.23)	3.47	(2.40)	5.66	(2.84)
Total	Fall (N=226)	2.10	(1.94)	2.38	(1.84)	3.50	(2.40)	4.63	(2.76)
	Spring (N=223)	2.13	(1.76)	2.35	(2.43)	2.63	(2.18)	4.75	(2.88)

TABLE 15 (continued)

SECOND YEAR
MEAN AND STANDARD DEVIATION OF SYNTAX ANALYSIS

		NUMBER OF SENTENCE ERRORS							
Grade	Semester	Error Type One		Error Type Two		Error Type Three		Error Type Four	
8th	Fall (N=53)	0.83	(1.30)	0.17	(0.61)	0.53	(0.69)	0.37	(0.67)
	Spring (N=54)	0.09	(0.29)	0.31	(0.61)	0.56	(0.84)	0.20	(0.49)
9th	Fall (N=54)	1.02	(1.39)	0.13	(0.52)	0.28	(0.56)	0.46	(0.72)
	Spring (N=52)	0.17	(0.62)	0.37	(0.69)	0.23	(0.65)	0.29	(0.72)
10th	Fall (N=46)	0.57	(1.03)	0.11	(0.31)	0.35	(0.77)	0.52	(0.72)
	Spring (N=46)	0.13	(0.50)	0.28	(0.58)	0.15	(0.42)	0.17	(0.44)
11th	Fall (N=40)	0.88	(1.30)	0.25	(0.63)	0.27	(0.60)	0.55	(1.01)
	Spring (N=39)	0.08	(0.27)	0.44	(0.51)	0.18	(0.51)	0.05	(0.22)
12th	Fall (N=33)	0.61	(1.17)	0.18	(0.39)	0.48	(0.83)	0.55	(0.87)
	Spring (N=32)	0.16	(0.45)	0.25	(0.57)	0.16	(0.37)	0.19	(0.47)
Total	Fall (N=226)	0.80	(1.26)	0.16	(0.51)	0.38	(0.83)	0.48	(0.79)
	Spring (N=223)	0.13	(0.45)	0.33	(0.64)	0.27	(0.62)	0.19	(0.51)

Type One = Comma Splice
Type Two = Signal
Type Three = Run-on
Type Four = Weak Parallelism

TABLE 15 (continued)

SECOND YEAR
MEAN AND STANDARD DEVIATION OF SYNTAX ANALYSIS

Grade	Semester	Total # of Words/Bases		Total # of Free Units		Mean # of Words/Free Units		Total # of Bases	
8th	Fall (N=53)	172.98	(60.96)	7.65	(4.66)	28.94	(18.14)	19.02	(6.26)
	Spring (N=54)	234.54	(48.23)	7.38	(3.99)	33.34	(22.41)	20.11	(5.26)
9th	Fall (N=54)	216.31	(44.09)	10.56	(5.03)	46.41	(21.93)	20.48	(5.32)
	Spring (N=52)	241.40	(32.10)	12.50	(12.47)	54.00	(26.94)	19.62	(3.53)
10th	Fall (N=46)	242.17	(32.29)	9.87	(4.21)	43.65	(23.00)	21.61	(4.76)
	Spring (N=46)	256.02	(26.69)	9.20	(3.35)	46.54	(21.21)	19.37	(3.23)
11th	Fall (N=40)	232.27	(24.75)	13.25	(4.49)	68.29	(25.11)	20.52	(3.94)
	Spring (N=39)	241.90	(32.09)	10.49	(4.51)	54.36	(30.34)	18.92	(3.29)
12th	Fall (N=33)	229.15	(32.84)	12.09	(3.38)	57.27	(16.65)	20.03	(3.70)
	Spring (N=32)	253.38	(27.13)	10.44	(3.82)	54.75	(22.34)	19.13	(3.32)
Total	Fall (N=226)	216.31	(49.18)	10.45	(4.83)	47.29	(24.87)	20.32	(5.06)
	Spring (N=223)	244.56	(35.81)	9.94	(7.13)	47.69	(26.07)	19.49	(3.89)

Standard Deviation in parenthesis

TABLE 15 (continued)

SECOND YEAR
MEAN AND STANDARD DEVIATION OF SYNTAX ANALYSIS

Grade	Semester	Total # of Words in T-Units	Total # of T-Units
8th	Fall (N=53)	199.83 (73.78)	18.79 (6.31)
	Spring (N=54)	269.22 (53.11)	20.11 (5.26)
9th	Fall (N=54)	262.76 (48.73)	20.44 (5.28)
	Spring (N=52)	292.48 (29.50)	19.27 (4.38)
10th	Fall (N=46)	286.43 (34.42)	21.22 (4.86)
	Spring (N=46)	301.24 (25.11)	19.52 (3.45)
11th	Fall (N=40)	300.27 (18.36)	20.32 (3.92)
	Spring (N=39)	293.44 (29.76)	18.87 (3.28)
12th	Fall (N=33)	286.15 (34.92)	18.84 (3.82)
	Spring (N=32)	302.19 (18.03)	17.74 (3.36)
Total	Fall (N=226)	263.16 (60.50)	20.12 (5.08)
	Spring (N=223)	289.73 (37.07)	18.42 (4.13)

Standard Deviation in parenthesis

TABLE 16

FIRST YEAR
PERCENTAGE OF SENTENCE TYPES

Grade	Semester	S-V	S-V-O	S-LV-C	S-PV	It/There	Other
8th	Fall (N=42)	17.17	51.93	19.74	2.15	8.58	0.86
	Spring (N=42)	7.39	53.69	34.00	1.97	2.96	0.49
9th	Fall (N=47)	14.68	47.22	23.81	0.79	4.76	0.40
	Spring (N=47)	5.05	54.04	35.35	1.01	4.04	0.51
10th	Fall (N=44)	8.41	61.68	21.03	1.40	6.54	0.93
	Spring (N=44)	3.48	56.22	34.83	1.49	4.48	0.50
11th	Fall (N=37)	18.87	45.75	26.42	4.72	4.25	-0-
	Spring (N=37)	4.04	54.55	36.36	1.52	3.03	0.50
12th	Fall (N=39)	16.08	51.26	23.12	4.52	50.3	-0-
	Spring (N=39)	5.53	55.78	31.66	2.51	4.52	-0-
Total	Fall (N=209)	14.80	51.57	22.42	2.24	5.83	0.40
	Spring (N=219)	5.00	55.00	34.50	1.50	4.0	0.50

TABLE 17

SECOND YEAR
PERCENTAGE OF SENTENCE TYPES

Grade	Semester	S-V	S-V-O	S-LV-C	S-PV	It/There	Other
8th	Fall (N=54)	10.72	54.10	30.84	2.08	2.81	1.01
	Spring (N=53)	10.29	46.89	32.77	3.13	6.46	0.30
9th	Fall (N=54)	7.60	56.12	30.06	1.53	4.00	0.40
	Spring (N=53)	9.84	47.28	35.94	2.59	5.59	0.52
10th	Fall (N=47)	7.57	54.50	31.38	1.02	5.34	0.19
	Spring (N=46)	7.54	43.78	39.08	3.15	6.50	-0-
11th	Fall (N=40)	3.54	58.81	31.74	1.08	4.43	0.34
	Spring (N=40)	8.44	46.95	34.27	2.18	8.17	0.16
12th	Fall (N=33)	5.60	60.30	29.70	0.75	3.50	-0-
	Spring (N=33)	7.54	47.62	33.16	2.62	4.40	0.47
Total	Fall (N=228)	7.34	56.37	30.76	1.36	4.03	0.44
	Spring (N=225)	8.92	46.44	35.67	2.78	6.29	0.31

TABLE 18

FIRST YEAR
PERCENT OF TOTAL WORDS IN FREE MODIFIERS

Grade	Semester	Total # of Words in Essay (MEAN)	Total # of Words in Free Units (MEAN)	Total # of Words in Openers (MEAN)	Total # of Words in Closers (MEAN)	Total # of Words in Intrptrs (MEAN)
8th	Fall (N=42)	268.79 (100.00)	45.84 (17.05)	23.57 (8.77)	6.17 (2.30)	16.10 (5.99)
	Spring (N=42)	275.95 (100.00)	51.22 (18.56)	21.75 (7.88)	9.65 (3.50)	19.82 (7.18)
9th	Fall (N=47)	280.38 (100.00)	49.15 (17.53)	25.43 (9.07)	7.20 (2.57)	16.52 (5.89)
	Spring (N=47)	288.48 (100.00)	55.73 (19.32)	22.24 (7.71)	11.93 (4.14)	21.56 (7.47)
10th	Fall (N=44)	290.80 (100.00)	52.62 (18.09)	28.02 (9.64)	6.72 (2.31)	17.88 (6.15)
	Spring (N=44)	297.33 (100.00)	59.02 (19.85)	25.90 (8.71)	9.83 (3.31)	23.29 (7.83)
11th	Fall (N=37)	299.62 (100.00)	52.46 (17.51)	23.69 (7.91)	9.57 (3.19)	19.20 (6.41)
	Spring (N=37)	292.50 (100.00)	66.73 (22.81)	29.35 (10.03)	11.35 (3.88)	26.03 (8.90)
12th	Fall (N=39)	293.44 (100.00)	55.18 (18.80)	25.46 (8.68)	8.13 (2.77)	21.59 (7.36)
	Spring (N=39)	298.95 (100.00)	54.72 (18.30)	24.90 (8.33)	10.90 (3.65)	18.92 (6.33)
Total	Fall (N=209)	286.09 (100.00)	50.82 (17.76)	25.34 (8.86)	7.43 (2.60)	18.05 (6.31)
	Spring (N=219)	290.57 (100.00)	57.20 (19.69)	24.70 (8.50)	10.70 (3.68)	21.80 (7.50)

Percent in parenthesis

TABLE 19

SECOND YEAR
PERCENT OF TOTAL WORDS IN FREE MODIFIERS

Grade	Semester	Total # of Words in Essay (MEAN)	Total # of Words in Free Units (MEAN)	Total # of Words in Openers (MEAN)	Total # of Words in Closers (MEAN)	Total # of Words in Intrptrs (MEAN)
8th	Fall (N=53)	208.23 (100.00)	28.13 (13.5)	15.13 (7.3)	3.78 (1.8)	9.22 (4.4)
	Spring (N=54)	270.06 (100.00)	33.43 (12.4)	15.51 (5.7)	6.32 (2.3)	11.60 (4.3)
9th	Fall (N=54)	266.20 (100.00)	55.55 (17.1)	23.38 (8.8)	6.57 (2.5)	15.60 (5.9)
	Spring (N=52)	298.46 (100.00)	53.27 (17.8)	24.98 (8.4)	9.92 (3.3)	8.37 (6.2)
10th	Fall (N=46)	289.89 (100.00)	42.73 (14.7)	21.51 (7.4)	5.24 (1.8)	15.98 (5.5)
	Spring (N=46)	306.07 (100.00)	46.33 (15.1)	24.11 (7.9)	7.71) 2.5)	14.51 (4.7)
11th	Fall (N=40)	303.15 (100.00)	64.67 (21.3)	33.35 (11.0)	9.85 (3.2)	21.47 (7.1)
	Spring (N=39)	300.46 (100.00)	55.74 1(18.6)	23.67 (7.9)	8.10 (2.7)	23.97 (8.0)
12th	Fall (N=33)	289.24 (100.00)	48.39 (16.7)	28.65 (9.9)	9.16 (3.2)	10.58 (3.7)
	Spring (N=32)	307.75 (100.00)	55.62 (18.1)	30.00 (9.7)	8.68 (2.8)	16.94 (5.5)
Total	Fall (N=226)	267.33 (100.00)	45.41 (17.0)	23.52 (8.8)	6.57 (2.5)	15.32 (5.7)
	Spring (N=223)	294.83 (100.00)	47.87 (16.2)	23.00 (7.8)	8.10 (2.7)	16.77 (5.7)

Percent in parenthesis

TABLE 20

CORRELATION BETWEEN ANALYTIC SCORES, SELF EVALUATION AND DEFINITION TEST SCORE FIRST AND SECOND YEAR -- FALL AND SPRING

Total Group	ANA (F)	ANA(S)	SEVAL (F)	SEVAL (S)	DT (F)	DT (S)
ANA (F)	1.00	.23**	.61***	.28***	.48***	-.06
ANA (S)	.40***	1.00	.24***	.34***	.33***	.24***
SEVAL (F)	.45***	.39***	1.00	.41***	.61***	.05
SEVAL (S)	.50***	.49***	.61***	1.00	.41***	.34***
DT (F)	.51***	.59***	.67***	.63***	1.00	.25***
DT (S)	.47***	.49***	.41***	.54***	.76***	1.00

8th Grade	ANA (F)	ANA(S)	SEVAL (F)	SEVAL (S)	DT (F)	DT (S)
ANA (F)	1.00	.13	.14	.03	-.12	-.39
ANA (S)	.16	1.00	-.07	.40*	.12	.34*
SEVAL (F)	.01	.06	1.00	.37*	.46**	.05
SEVAL (S)	.06	-.06	.27	1.00	.37*	.54***
DT (F)	.22	.03	.56***	.28*	1.00	.12
DT (S)	.14	-.09	-.13	.14	.02	1.00

^ Above diagonal: for 1st year data
^ Below diagonal: for 2nd year data
^ ANA : Analytic Scores
^ SEVAL : Students' self evaluations of writing skills
^ DT : Definition Test Scores
* Significant at alpha = .05 level
** Significant at alpha = .01 level
*** Significant at alpha = .001 level
F = Fall S = Spring

TABLE 20 (continued)

CORRELATION BETWEEN ANALYTIC SCORES, SELF EVALUATION AND DEFINITION TEST SCORE
FIRST AND SECOND YEAR -- FALL AND SPRING

9th Grade	ANA (F)	ANA(S)	SEVAL (F)	SEVAL (S)	DT (F)	DT (S)
ANA (F)	1.00	-.08	.25	-.15	.11	.01
ANA (S)	.09	1.00	-.02	.34*	.08	.22
SEVAL (F)	.09	.06	1.00	.25	.48***	.09
SEVAL (S)	.21	.24	.20	1.00	.30*	.35*
DT (F)	.16	.34*	.52***	.23	1.00	.48***
DT (S)	.32*	.33*	.19	.21	.53***	1.00

10th Grade	ANA (F)	ANA(S)	SEVAL (F)	SEVAL (S)	DT (F)	DT (S)
ANA (F)	1.00	-.08	.19	.07	.08	-.04
ANA (S)	.02	1.00	.29	.21	.27	.22
SEVAL (F)	.31*	.03	1.00	.17	.40*	.35*
SEVAL (S)	.10	-.01	.32*	1.00	.12	-.10
DT (F)	.34*	.07	.82***	.19	1.00	.50**
DT (S)	.28	.07	.47**	.32*	.47**	1.00

^ Above diagonal: for 1st year data
^ Below diagonal: for 2nd year data
^ ANA : Analytic Scores
^ SEVAL : Students' self evaluations of writing skills
^ DT : Definition Test Scores
* Significant at alpha = .05 level
** Significant at alpha = .01 level
*** Significant at alpha = .001 level
F = Fall S = Spring

TABLE 20 (continued)

CORRELATION BETWEEN ANALYTIC SCORES, SELF EVALUATION AND DEFINITION TEST SCORE FIRST AND SECOND YEAR -- FALL AND SPRING

11th Grade	ANA (F)	ANA(S)	SEVAL (F)	SEVAL (S)	DT (F)	DT (S)
ANA (F)	1.00	.17	.05	.14	.25	.36*
ANA (S)	.08	1.00	.11	.10	.31	.11
SEVAL (F)	.12	-.07	1.00	.42*	.03	.22
SEVAL (S)	.27	.18	.53***	1.00	.12	.34*
DT (F)	.12	.31	.51***	.48**	1.00	.49**
DT (S)	.24	.23	.30	.43**	.73***	1.00

12th Grade	ANA (F)	ANA(S)	SEVAL (F)	SEVAL (S)	DT (F)	DT (S)
ANA (F)	1.00	.10	.52**	.44**	.38*	.19
ANA (S)	.21	1.00	.02	.06	.15	.17
SEVAL (F)	.51**	.36*	1.00	.49**	.33*	.13
SEVAL (S)	.44**	.40*	.78***	1.00	.35*	.43**
DT (F)	.22	.19	.12	.17	1.00	.50**
DT (S)	.25	.09	.00	.11	.69***	1.00

^ Above diagonal: for 1st year data
^ Below diagonal: for 2nd year data
^ ANA : Analytic Scores
^ SEVAL : Students' self evaluations of writing skills
^ DT : Definition Test Scores
* Significant at alpha = .05 level
** Significant at alpha = .01 level
*** Significant at alpha = .001 level
F = Fall S = Spring

CLR No. 14
Exhibit I
Pg. 300

EXHIBITS

EXHIBIT I

This summer, my grandmother came to visit, and we all went for a weekend to Chicago (my mother, my grandmother, my stepfather, and I). I hadn't seen her in two years, so my memories of her had been slightly blurred and changed. I had no idea what to expect, and I got something of a shock. My grandmother's visit was "interesting" because she was eccentric, changed my ideas about her, and showed me how my mother got along with her.

If you have ever tried to deal with an eccentric person, you know my position. My grandmother wouldn't listen to anyone for any reason, any time. When we got to Chicago and were trying to find the hotel, she spewed out random information about streets in Chicago, none of which were the one we needed. When we at last found our street, she said, "I told you so." Then when we got into our room, all she wanted to do was stare out the window at the old Chicago Tribune building. Even when my mother wanted to change, she ignored her and wouldn't pull the drapes shut. When she wanted a Tribune newspaper, she flagged down the delivery truck. This wasn't the grandmother that I had remembered, but I didn't really mind.

For a long time I had considered my grandmother perfect. At the Chicago trip, I discovered that she wasn't. She acted oddly and irresponsibly, a lot like a two year old with sixty years more time to gain intelligence and experience (she didn't use the experience, though.) My mother noticed the same things that I did.

I had always thought that my mother and grandmother got along very well, and they do, if it's over the phone. But when my grandmother was here in the flesh, my mother became sullen and angry. Fortunately, grandmother didn't notice.

Dealing with my eccentric grandmother wasn't too easy, but it was worth it. Now I see what she's really like, how my mother deals with her, and how I can deal with her. When I went along with her odddities, she was at least tolerable. I've decided that I certainly don't want to become like her, but that I can stand her that way, after all.

I. Intro
  Visit interesting because eccentric, changed my ideas about her, and saw relationship
II Trib building
  Walking out
  Drubks
  Won't listen
III Thought her nice, slightly weird
  Won't listen
  Overbearing
  Still friendly
IV Mom snapped
  Avoided
V Don't like weirdness, etc., but makes her feel better.

EXHIBIT II

PAPER TOPIC, FALL, 1982

Write a paper of not more than 500 words in which you discuss the following topic. Before you write, identify your audience -- a friend, a parent, or your classmates. Do not forget to write from a thesis with evidence to support it. Use varied sentence structure, unified paragraphs, an introduction and conclusion. DOUBLE SPACE. (If you wish to jot down your ideas beforehand, you may use the back of the theme booklet.)

TOPIC:

Identify and discuss a significant, important, or interesting event(s) or experience(s) that happened to you this past year. You may use experiences and events that happened during the school year, after school or weekends, or during vacations. You may choose an experience that had a considerable influence on you and your way of thinking and living. Note the important words: significant, important, or interesting.

Depending upon your training in essay-writing, you may wish to develop your essay in one of the following ways (or a comination of these).

SUGGESTIONS:

(1) Give three reasons why the event or experience was significant.

(2) Define what you mean by the event or experience.

(3) Compare it with other events or experiences you have had.

(4) Describe the process you went through as the experience occurred.

(5) Analyze the cause-effect of the experience.

Spring, 1983

Write a paper of not more than 500 words in which you discuss the following topic. Before you write, identify your audience -- a friend, a parent, or your classmates. Do not forget to write from a thesis with evidence to support it. Use varied sentence structure, unified paragraphs, an introduction and conclusion. DOUBLE SPACE. (If you wish to jot down your ideas beforehand, you may use the back of the theme booklet.)

TOPIC:

Identify and discuss your favorite character in television, fiction, or movies (but not all three). You may wish to discuss a character that has had a considerable influence on you. Note the important words: favorite and influence.

Depending upon your training in essay-writing, you may wish to develop your essay in one of the following ways (or a combination).

Suggestions:

(1) Give three reasons why the character is your favorite.

(2) Compare your favorite character with other characters you may or may not like.

(3) Describe the process you went through in identifying your favorite character.

(4) Write an argument in support of your choice.

(5) Discuss the effect the character has had on your life.

(6) Define what you mean by favorite when you discuss the character.

PROPOSED TOPIC FOR FALL, 1983

Write a paper of not more than 500 words in which you discuss the following topic. Before you write, identify your audience--a friend, a parent, or your classmates. Do not forget to write from a thesis with evidence to support it. Use varied sentence structure, unified paragraphs, an introduction and a conclusion. DOUBLE SPACE. (If you wish to jot down your ideas beforehand, you may use the back of the theme booklet.)

TOPIC:

Identify and discuss a person you know or an historical figure who has interested you. The person or historical figure may be living: that means that you do not necessarily need to discuss someone from the past. You may be approving or critical of the individual that you discuss; you may consider their strengths and/or their weaknesses. You may even wish to discuss his/her influence on you.

SUGGESTIONS:

Depending upon your training in essay writing, you may wish to develop your essay in one of the following ways (or a combination of these):

(1) Give three reasons why the person interests you.
(2) Define what you mean by interests you
(3) Compare this person with some other person or historical figure.
(4) Describe the process by which you chose this person.
(5) Discuss the cause-effect of this person on your history.

Exhibit 5

Paper Topic, Spring, 1984

Write a paper of not more than 500 words in which you discuss the following topic. Before you write, identify your audience-- a friend, a parent, or your classmates. Do not forget to write from a thesis with evidence to support it. Use varied sentence structure, unified paragraphs, an introduction and conclusion. DOUBLE SPACE. (If you wish to jot down your ideas beforehand, you may use the back of the theme booklet.)

TOPIC:

Identify and discuss your favorite piece of fiction studied at University High School. You may wish to discuss an epic, poem, novel, short story or play (but only one) that has influenced you. You may choose to discuss the main character of your favorite piece of fiction. (Note the important words: favorite and influence.)

Some of you may have only one academic year's selections to choose from. Others will have a greater range of choice if you have attended Uni for more than one year. However, you must choose a poem, epic, novel, short story, or play that you have studied in English at University High School.

Depending upon your training in essay writing, you may choose to develop your essay in one of the following ways (or a combination):

SUGGESTIONS:

(1) Give three reasons why the piece of fiction is your favorite.
(2) Compare your favorite with other selections you may or may not like.
(3) Describe the process you went through in identifying your favorite selection.
(4) Write an argument in support of your choice.
(5) Discuss the effect the epic, poem, short story, novel, or play had on your life.
(6) Define what you mean by favorite when you discuss the selection.

The English Department will use these papers to identify the best writer of this essay for each grade level. On Class Night, we will give an award to the student from each grade who best fulfills the requirements of this essay topic.

Exhibit 6
Pg. 307

Student________________

Date ________________

Student Questionnaire

On the following, evaluate your writing skills by circling the number opposite the statement that best describes your skills. For instance, circle 4 if you believe that you can do the skill well. Circle 3 if you think you need lots of help or practice doing the skill. Circle 2 if you don't know whether or not you can do the skill. Circle 1 if you don't know what the term means.

1.	Developing a thesis statement for a topic.	1	2	3	4	6
2.	Using a clear, logical organization in an essay.	1	2	3	4	7
3.	Writing a clear paragraph topic sentence.	1	2	3	4	8
4.	Developing a paragraph	1	2	3	4	9
5.	Using relevant, detailed evidence to support the thesis.	1	2	3	4	10
6.	Writing introductions to essays.	1	2	3	4	11
7.	Writing conclusions to essays	1	2	3	4	12
8.	Using openers in sentences.	1	2	3	4	13
9.	Using interrupters in sentences.	1	2	3	4	14
10.	Using closers in sentences.	1	2	3	4	15
11.	Using a variety of standard sentence types.	1	2	3	4	16
12.	Using appropriate signals	1	2	3	4	17
13.	Using parallelism.	1	2	3	4	18
14.	Section A-1 B-2					19
15.	Semester Fall-1 Spring-2					20

CLR No. 14
Exhibit 7
Pg. 308

Student ______________

Define the following terms:

1. A thesis of an essay is

2. Logical organization is

3. A paragraph topic sentence is

4. A paragraph is

5. Evidence in a composition is

6. An introduction to a paper is

7. A conclusion to a paper is

8. A sentence opener is

9. A sentence interrupter is

10. A sentence closer is

11. The five common sentence types are:

    (a)

    (b)

    (c)

    (d)

    (e)

12. A signal of a sentence is

13. Parallelism in sentence structure is

Form________________

Student________________

Semester________________

We are interested to learn how you apply the writing skills you have learned. Circle the five skills that you find most useful when you write an essay. Circle only five of the numbers in the right-hand column.

	Circle five	
a. Developing a thesis statement for a topiç.	1	34
b. Using clear, logical organization in an essay.	2	35
c. Writing a clear paragraph topic sentence.	3	36
d. Developing a paragraph	4	37
e. Using relevant, detailed evidence to support the thesis.	5	38
f. Writing introductions to essays.	6	39
g. Writing conlusions to essays.	7	40
h. Using openers in sentences.	8	41
i. Using interrupters in sentences.	9	42
j. Using closers in sentences.	10	43
k. Using a variety of standard sentence types.	11	44
l. Using appropriate signals.	12	45
m. Using parallelism,	13	46

Year	77
Grade	78
Section	79
Deck	80

CLR No. 14
Exhibit 9
Pg. 310

Student (1 - 3) Semester (4)

Directions to Coder: Evaluate the definitions written on Form VI, using the following code: (1) no answer, (2) wrong class of sentence type, (3) incorrect definition (4) incomplete definition (5) satisfactory definition.

1. A thesis is	1 -- 2 -- 3 -- 4 -- 5	5
2. Logical organization is	1 -- 2 -- 3 -- 4 -- 5	6
3. A paragraph topic sentence is	1 -- 2 -- 3 -- 4 -- 5	7
4. A paragraph is	1 -- 2 -- 3 -- 4 -- 5	8
5. Evidence is	1 -- 2 -- 3 -- 4 -- 5	9
6. An introduction to a paper is	1 -- 2 -- 3 -- 4 -- 5	10
7. A conclusion to a paper is	1 -- 2 -- 3 -- 4 -- 5	11
8. A sentence opener is	1 -- 2 -- 3 -- 4 -- 5	12
9. A sentence interrupter	1 -- 2 -- 3 -- 4 -- 5	13
10. A sentence closer is	1 -- 2 -- 3 -- 4 -- 5	14
11. The five sentence types are:		
(a) SV	1 -- 2 -- 3 -- 4 -- 5	15
(b) SVO	1 -- 2 -- 3 -- 4 -- 5	16
(c) SlvC	1 -- 2 -- 3 -- 4 -- 5	17
(d) SPV	1 -- 2 -- 3 -- 4 -- 5	18
(e) Expletive	1 -- 2 -- 3 -- 4 -- 5	19
12. A signal is	1 -- 2 -- 3 -- 4 -- 5	20
13. Parallelism is	1 -- 2 -- 3 -- 4 -- 5	21

Year	77
Grade	78
Section	79
Deck	80

Directions- Below are a series of statements about writing. There are no right or wrong answers to these statements. Pleas indicate the degree to which each statement applies to you by checking whether you (1) strongly agree, (2) agree, (3) are uncertain, (4) disagree, or (5) strongly disagree with the statement. While some of these statements may seem repetitious, take your time and try to be as honest as possible. Thank you for your cooperation in this matter.

	(1) strongly agree	(2) agree	(3) uncertain	(4) disagree	(5) strongly disagree
1. I avoid writing.					
2. I have no fear of my writing being evaluated.					
3. I look forward to writing down my ideas.					
4. I am afraid of writing essays when I know they will be evaluated.					
5. Taking a composition course is a very frightening experience.					
6. Handing in a composition makes me feel good.					
7. My mind seems to go blank when I start to work on a composition.					
8. Expressing ideas through writing seems to be a waste of time.					
9. I would enjoy submitting my writing to magazines for evaluation and publication.					
10. I like to write my ideas down.					
11. I feel confident in my ability to clearly express my ideas in writing.					
12. I like to have my friends read what I have written.					
13. I'm nervous about writing.					
14. People seem to enjoy what I write.					
15. I enjoy writing.					
16. I never seem to be able to clearly write down my ideas.					
17. Writing is a lot of fun.					
18. I expect to do poorly in composition classes even before I enter them.					

CLR No. 14
Exhibit 10
Pg. 311

	(1) strongly agree	(2) agree	(3) uncertain	(4) disagree	(' str dis
19. I like seeing my thoughts on paper.					
20. Discussing my writing with others is an enjoyable experience.					
21. I have a terrible time organizing my ideas in a composition course.					
22. When I hand in a composition I know I'm going to do poorly.					
23. It's easy for me to write good compositions.					
24. I don't think I write as well as most other people.					
25. I don't like my compositions to be evaluated.					
26. I'm no good at writing.					

CLR No. 14
Exhibit 10 (continued
Pg. 312